

Sequence Listing

<110> Ashkenazi, Avi
Baker Kevin P.
Botstein, David
Desnoyers, Luc
Eaton, Dan
Ferrara, Napoleon
Filvaroff, Ellen
Fong, Sherman
Gao, Wei-Qiang
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Hillan, Kenneth J
Kljavin, Ivar J.
Kuo, Sophia S.
Napier, Mary A.
Pan, James;
Paoni, Nicholas F.
Roy, Margaret Ann
Shelton, David L.
Stewart, Timothy A.
Tumas, Daniel
Williams, P. Mickey
Wood, William I.

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335	340	345

Pro Asn Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp
350 355 360

Phe Ala Phe Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser
365 370 375

Phe Phe Pro Val Pro Val Thr Val Arg Ala His Leu Thr Gly Trp
380 385 390

Leu Met Thr Leu Lys Lys Thr Phe Val Leu Ala Pro Ser Ser Val
395 400 405

Leu Arg Ile Ile Val Leu Ile Ala Ser Leu Val Val Leu Pro Tyr
410 415 420

Leu Gly Val His Gly Ala Thr Leu Gly Val Gly Ser Leu Leu Ala
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Gly Phe Val Gly Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr
440 445 450

Val Tyr Arg Lys Gln Lys Lys Met Glu Asn Glu Ser Ala Thr
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Glu Gly Glu Asp Ser Ala Met Thr Asp Met Pro Pro Thr Glu Glu
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Val Thr Asp Ile Val Glu Met Arg Glu Glu Asn Glu
485 490

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<222> 33, 66, 96, 387
<223> unknown base

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<210> 9
<211> 434
<212> DNA
<213> Homo sapiens

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<222> 32, 54, 80, 111, 117, 122, 139, 193, 205, 221, 226, 228, 273,
293, 296, 305, 336, 358, 361
<223> unknown base

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gttttggaca cccaaagtgt ttgagaaaat tttgatagac atnatcggag 200
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gc当地accctgg gc当地gtggg当地tcc cct当地ctggcg ggca 434

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<211> 154
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 33, 49, 68, 83, 90, 98, 119
<223> unknown base

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agac 154

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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 11
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<210> 12
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

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<210> 13
<211> 18
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 13
tcatctttc cctctccc 18

<210> 14
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<220>
<223> Synthetic oligonucleotide probe

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<220>
<223> Synthetic oligonucleotide probe

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<210> 16
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 18
<211> 1901
<212> DNA
<213> Homo sapiens

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<210> 19
<211> 457
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<213> Homo sapiens

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35 40 45
Leu Phe Leu Gly Val Leu Val Ser Ile Ile Met Leu Ser Pro Gly
50 55 60

Val Glu Ser Gln Leu Tyr Lys Leu Pro Trp Val Cys Glu Glu Gly
 65 70 75
 Ala Gly Ile Pro Thr Val Leu Gln Gly His Ile Asp Cys Gly Ser
 80 85 90
 Leu Leu Gly Tyr Arg Ala Val Tyr Arg Met Cys Phe Ala Thr Ala
 95 100 105
 Ala Phe Phe Phe Phe Phe Thr Leu Leu Met Leu Cys Val Ser
 110 115 120
 Ser Ser Arg Asp Pro Arg Ala Ala Ile Gln Asn Gly Phe Trp Phe
 125 130 135
 Phe Lys Phe Leu Ile Leu Val Gly Leu Thr Val Gly Ala Phe Tyr
 140 145 150
 Ile Pro Asp Gly Ser Phe Thr Asn Ile Trp Phe Tyr Phe Gly Val
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 Val Gly Ser Phe Leu Phe Ile Leu Ile Gln Leu Val Leu Leu Ile
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 Glu Cys Asp Ser Arg Ala Trp Tyr Ala Gly Leu Phe Phe Phe Thr
 200 205 210
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 215 220 225
 Met Tyr Tyr Thr Glu Pro Ser Gly Cys His Glu Gly Lys Val Phe
 230 235 240
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 245 250 255
 Val Leu Pro Lys Val Gln Asp Ala Gln Pro Asn Ser Gly Leu Leu
 260 265 270
 Gln Ala Ser Val Ile Thr Leu Tyr Thr Met Phe Val Thr Trp Ser
 275 280 285
 Ala Leu Ser Ser Ile Pro Glu Gln Lys Cys Asn Pro His Leu Pro
 290 295 300
 Thr Gln Leu Gly Asn Glu Thr Val Val Ala Gly Pro Glu Gly Tyr
 305 310 315
 Glu Thr Gln Trp Trp Asp Ala Pro Ser Ile Val Gly Leu Ile Ile
 320 325 330
 Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp His
 335 340 345
 Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met

350 355 360

Leu Asp Ala Thr Gln Gln Gln Gln Gln Val Ala Ala Cys Glu
365 370 375

Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr
380 385 390

Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met
395 400 405

Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met
410 415 420

Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp
425 430 435

Ala Gly Leu Leu Leu Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu
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<211> 24

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<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 20

gccgcctcat cttcacgttc ttcc 24

<210> 21

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 21

tcatccagct ggtgctgctc 20

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

tttcttccac ttctgcctgg 20

<210> 23

<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 23
cctgggcaaa aatgcaac 18

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<220>
<223> Synthetic oligonucleotide probe

<400> 24
caggaatgt a gaaggcaccc acgg 24

<210> 25
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
tggcacagat cttcacccac acgg 24

<210> 26
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
tgtccatcat tatgctgagc ccgggcgtgg agagtcagct ctacaagctg 50

<210> 27
<211> 1351
<212> DNA
<213> Homo sapiens

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<210> 28
<211> 285
<212> PRT
<213> Homo sapiens

<400> 28
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 35 40 45
 Pro Glu Pro Tyr Tyr Pro Glu Ser Gly Trp Asp Arg Leu Arg Glu
 50 55 60
 Leu Phe Gly Lys Asp Glu Gln Gln Arg Ile Ser Lys Asp Leu Ala
 65 70 75
 Asn Ile Cys Lys Thr Ala Ala Thr Ala Gly Ile Ile Gly Trp Val
 80 85 90
 Tyr Gly Gly Ile Pro Ala Phe Ile His Ala Lys Gln Gln Tyr Ile
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 170 175 180
 Ile Asn Val Gly Leu Arg Gly Leu Val Ala Gly Gly Ile Ile Gly
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 Ala Leu Leu Gly Thr Pro Val Gly Gly Leu Leu Met Ala Phe Gln
 200 205 210
 Lys Tyr Ala Gly Glu Thr Val Gln Glu Arg Lys Gln Lys Asp Arg
 215 220 225
 Lys Ala Leu His Glu Leu Lys Leu Glu Glu Trp Lys Gly Arg Leu
 230 235 240
 Gln Val Thr Glu His Leu Pro Glu Lys Ile Glu Ser Ser Leu Arg
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<210> 29

<211> 324

<212> DNA

<213> Homo sapiens

<400> 29

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ttcgttcatg gctggcgccg aacc 324

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<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 262, 330, 371
<223> unknown base

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agagccaggc agaaatttat nataacc 377

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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 31
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<210> 32
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<400> 32
cttgaggagc gtcagaagcg 20

<210> 33
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
ataacgaatg aagcctcgta 20

<210> 34
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 34
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<210> 35
<211> 1819
<212> DNA
<213> Homo sapiens

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<211> 204

<212> PRT

<213> Homo sapiens

<400> 36

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Leu	Asn	Leu	Leu	Tyr	Thr	Leu	Val	Ser	Leu	Leu	Leu	Ile	Gly	Ile
					20				25					30

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 35 40 45
 Val Gly Val Val Ile Ala Val Gly Ile Phe Leu Phe Leu Ile Ala
 50 55 60
 Leu Val Gly Leu Ile Gly Ala Val Lys His His Gln Val Leu Leu
 65 70 75
 Phe Phe Tyr Met Ile Ile Leu Leu Leu Val Phe Ile Val Gln Phe
 80 85 90
 Ser Val Ser Cys Ala Cys Leu Ala Leu Asn Gln Glu Gln Gln Gly
 95 100 105
 Gln Leu Leu Glu Val Gly Trp Asn Asn Thr Ala Ser Ala Arg Asn
 110 115 120
 Asp Ile Gln Arg Asn Leu Asn Cys Cys Gly Phe Arg Ser Val Asn
 125 130 135
 Pro Asn Asp Thr Cys Leu Ala Ser Cys Val Lys Ser Asp His Ser
 140 145 150
 Cys Ser Pro Cys Ala Pro Ile Ile Gly Glu Tyr Ala Gly Glu Val
 155 160 165
 Leu Arg Phe Val Gly Gly Ile Gly Leu Phe Phe Ser Phe Thr Glu
 170 175 180
 Ile Leu Gly Val Trp Leu Thr Tyr Arg Tyr Arg Asn Gln Lys Asp
 185 190 195
 Pro Arg Ala Asn Pro Ser Ala Phe Leu
 200

<210> 37
 <211> 390
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 20, 35, 61, 83, 106, 130, 133, 187, 232, 260, 336
 <223> unknown base

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<213> Homo sapiens

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gcataatttga atatgatctc ccataatttgc aaattgaaat cgtattgtgt 500
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<210> 39
<211> 264
<212> DNA
<213> Homo sapiens

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<222> 84-85, 206
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ataggagaat atgc 264

<210> 40

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

acccacgtct gcgttgctgc c 21

<210> 41

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 41

gagaatatgc tggagagg 18

<210> 42

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 42

aggaatgcac taggattcgc gcgg 24

<210> 43

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 43

ggccccaaag gcaaggacaa agcagctgtc agggAACCTC cgccg 45

<210> 44

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 44

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<212> PRT
<213> Homo sapiens

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35 40 45
Cys His Thr Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe
50 55 60
Gln Val Lys Ala Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val
65 70 75
Ser Tyr Asp Trp Leu Ile Leu Gln Gly Pro Ala Lys Pro Val Phe
80 85 90
Glu Gly Asp Leu Leu Val Leu Arg Cys Gln Ala Trp Gln Asp Trp
95 100 105
Pro Leu Thr Gln Val Thr Phe Tyr Arg Asp Gly Ser Ala Leu Gly
110 115 120
Pro Pro Gly Pro Asn Arg Glu Phe Ser Ile Thr Val Val Gln Lys
125 130 135
Ala Asp Ser Gly His Tyr His Cys Ser Gly Ile Phe Gln Ser Pro
140 145 150

Gly Pro Gly Ile Pro Glu Thr Ala Ser Val Val Ala Ile Thr Val
 155 160 165
 Gln Glu Leu Phe Pro Ala Pro Ile Leu Arg Ala Val Pro Ser Ala
 170 175 180
 Glu Pro Gln Ala Gly Ser Pro Met Thr Leu Ser Cys Gln Thr Lys
 185 190 195
 Leu Pro Leu Gln Arg Ser Ala Ala Arg Leu Leu Phe Ser Phe Tyr
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 Lys Asp Gly Arg Ile Val Gln Ser Arg Gly Leu Ser Ser Glu Phe
 215 220 225
 Gln Ile Pro Thr Ala Ser Glu Asp His Ser Gly Ser Tyr Trp Cys
 230 235 240
 Glu Ala Ala Thr Glu Asp Asn Gln Val Trp Lys Gln Ser Pro Gln
 245 250 255
 Leu Glu Ile Arg Val Gln Gly Ala Ser Ser Ser Ala Ala Pro Pro
 260 265 270
 Thr Leu Asn Pro Ala Pro Gln Lys Ser Ala Ala Pro Gly Thr Ala
 275 280 285
 Pro Glu Glu Ala Pro Gly Pro Leu Pro Pro Pro Pro Thr Pro Ser
 290 295 300
 Ser Glu Asp Pro Gly Phe Ser Ser Pro Leu Gly Met Pro Asp Pro
 305 310 315
 His Leu Tyr His Gln Met Gly Leu Leu Leu Lys His Met Gln Asp
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 Ser Gly His Gln Lys Pro Gly Thr Thr Lys Ala Thr Ala Glu
 350 355

<210> 46
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
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<210> 47
<211> 18
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 47
tttccagcgc caattctc 18

<210> 48
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48
agttcttggaa ctgtgatagc cac 23

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 49
aaacttggtt gtcctcagtg gctg 24

<210> 50
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 50
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<210> 51
<211> 2181
<212> DNA
<213> Homo sapiens

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<210> 52

<211> 321

<212> PRT

<213> Homo sapiens

<400> 52

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					65				70				75	
His	Ile	Gln	Gln	Ala	Lys	Tyr	Gln	Gly	Arg	Leu	His	Val	Ser	His
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Lys	Val	Pro	Gly	Asp	Val	Ser	Leu	Gln	Leu	Ser	Thr	Leu	Glu	Met
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Gln Thr Asn Asn Gln Glu Pro Ile Lys Val Ala Thr Leu Ser Thr
185 190 195

Leu Leu Phe Lys Pro Ala Val Ile Ala Asp Ser Gly Ser Tyr Phe
200 205 210

Cys Thr Ala Lys Gly Gln Val Gly Ser Glu Gln His Ser Asp Ile
215 220 225

Val Lys Phe Val Val Lys Asp Ser Ser Lys Leu Leu Lys Thr Lys
230 235 240

Thr Glu Ala Pro Thr Thr Met Thr Tyr Pro Leu Lys Ala Thr Ser
245 250 255

Thr Val Lys Gln Ser Trp Asp Trp Thr Thr Asp Met Asp Gly Tyr
260 265 270

Leu Gly Glu Thr Ser Ala Gly Pro Gly Lys Ser Leu Pro Val Phe
275 280 285

Ala Ile Ile Leu Ile Ile Ser Leu Cys Cys Met Val Val Phe Thr
290 295 300

Met Ala Tyr Ile Met Leu Cys Arg Lys Thr Ser Gln Gln Glu His
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Val Tyr Glu Ala Ala Arg
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<210> 53

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

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<210> 54

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 54

gtcggaaagac atcccaacaa g 21

<210> 55

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 55
cttcacaatg tcgctgtgct gctc 24

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 56
agccaaatcc agcagctggc ttac 24

<210> 57
<211> 50
<212> DNA
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<223> Synthetic oligonucleotide probe

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<210> 58
<211> 2458
<212> DNA
<213> Homo sapiens

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<210> 59
<211> 373
<212> PRT
<213> Homo sapiens

<400> 59
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Val Thr Leu Pro Cys His His Gln Leu Gly Leu Pro Glu Lys Asp
35 40 45
Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln
50 55 60
Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu
65 70 75
Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu
80 85 90
Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp
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Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val
110 115 120
Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro
125 130 135
Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr
140 145 150
Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr
155 160 165
Trp Gln Arg Ile Arg Glu Lys Glu Gly Glu Asp Glu Arg Leu Pro
170 175 180

Pro Lys Ser Arg Ile Asp Tyr Asn His Pro Gly Arg Val Leu Leu
185 190 195

Gln Asn Leu Thr Met Ser Tyr Ser Gly Leu Tyr Gln Cys Thr Ala
200 205 210

Gly Asn Glu Ala Gly Lys Glu Ser Cys Val Val Arg Val Thr Val
215 220 225

Gln Tyr Val Gln Ser Ile Gly Met Val Ala Gly Ala Val Thr Gly
230 235 240

Ile Val Ala Gly Ala Leu Leu Ile Phe Leu Leu Val Trp Leu Leu
245 250 255

Ile Arg Arg Lys Asp Lys Glu Arg Tyr Glu Glu Glu Arg Pro
260 265 270

Asn Glu Ile Arg Glu Asp Ala Glu Ala Pro Lys Ala Arg Leu Val
275 280 285

Lys Pro Ser Ser Ser Ser Gly Ser Arg Ser Ser Arg Ser Gly
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Ser Ser Ser Thr Arg Ser Thr Ala Asn Ser Ala Ser Arg Ser Gln
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Arg Thr Leu Ser Thr Asp Ala Ala Pro Gln Pro Gly Leu Ala Thr
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Gln Ala Tyr Ser Leu Val Gly Pro Glu Val Arg Gly Ser Glu Pro
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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<210> 61

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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actaggctgt atgcctgggt gggc 24

<210> 62
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 62
gtatgtacaa agcatcgca tggttgcagg agcagtgaca ggc 43

<210> 63
<211> 3534
<212> DNA
<213> Homo sapiens

<400> 63
gtcgttcctt tgctctctcg cgcccaagtcc tcctccctgg ttctcctcag 50
ccgctgtcgg aggagagcac ccggagacgc gggctgcagt cgcggcggct 100
tctccccgcc tgggcggcct cgccgctggg caggtgctga gcgc(ccctag 150
agcctccctt gccgcctccc tcctctgccc ggccgcagca gtgcacatgg 200
ggtgttggag gtagatgggc tcccgccccg ggaggcggcg gtggatgcgg 250
cgctggcag aagcagccgc cgattccagc tgccccgcgc gccccggcgc 300
cccctgcag tccccgggatc agccatgggg acctctccga gcagcagcac 350
cgccctcgcc tcctgcagcc gcatcgcccc ccgagccaca gccacgatga 400
tcgcgggctc ctttctccctg ctggattcc ttagcaccac cacagctcag 450
ccagaacaga aggcctcgaa tctcattggc acataccgccc atgttgcaccg 500
tgccaccggc caggtgctaa cctgtgacaa gtgtccagca ggaacctatg 550
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tgactgaccg agaatgcact tgcccacctg gcatgttcca gtctaacgct 750
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cgtctgtggc acactcccg ccttctccag ctccaccta ccttcccc 1000
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catttgaca tcaatgagca tttgccctgg atgattgtgc tttcctgct 1400
gctggtgctt gtggtgattg tgggtgcag tatccggaaa agctcgagga 1450
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aacttcacct ttttaggatTTT gagctgttctt ggaacacatt gctgcacttt 3150
ggaaagtcaa aatcaagtgc cagtgccgccc cttccatag agaatttgcc 3200
cagcttgct ttaaaaagatg tcttgTTTT tatatacaca taatcaatag 3250
gtccaatctg ctctcaaggc cttggcctcg gtgggattcc ttcaccaatt 3300
actttaattt aaaaatggctg caactgttaag aacccttgc tgatataattt 3350
gcaactatgc tcccatttac aaatgtaccc tctaattgctc agttgccagg 3400
ttccaatgca aaggtggcgt ggactccctt tgtgtgggtg gggTTTgtgg 3450
gtagtggta aggaccgata tcagaaaaat gccttcaagt gtactaattt 3500
attaataaac attaggtttt tgTTTTTTT aaaa 3534

<210> 64
<211> 655
<212> PRT
<213> Homo sapiens

<400> 64
Met Gly Thr Ser Pro Ser Ser Ser Thr Ala Leu Ala Ser Cys Ser
1 5 10 15
Arg Ile Ala Arg Arg Ala Thr Ala Thr Met Ile Ala Gly Ser Leu
20 25 30

Leu Leu Leu Gly Phe Leu Ser Thr Thr Ala Gln Pro Glu Gln
 35 40 45

Lys Ala Ser Asn Leu Ile Gly Thr Tyr Arg His Val Asp Arg Ala
 50 55 60

Thr Gly Gln Val Leu Thr Cys Asp Lys Cys Pro Ala Gly Thr Tyr
 65 70 75

Val Ser Glu His Cys Thr Asn Thr Ser Leu Arg Val Cys Ser Ser
 80 85 90

Cys Pro Val Gly Thr Phe Thr Arg His Glu Asn Gly Ile Glu Lys
 95 100 105

Cys His Asp Cys Ser Gln Pro Cys Pro Trp Pro Met Ile Glu Lys
 110 115 120

Leu Pro Cys Ala Ala Leu Thr Asp Arg Glu Cys Thr Cys Pro Pro
 125 130 135

Gly Met Phe Gln Ser Asn Ala Thr Cys Ala Pro His Thr Val Cys
 140 145 150

Pro Val Gly Trp Gly Val Arg Lys Lys Gly Thr Glu Thr Glu Asp
 155 160 165

Val Arg Cys Lys Gln Cys Ala Arg Gly Thr Phe Ser Asp Val Pro
 170 175 180

Ser Ser Val Met Lys Cys Lys Ala Tyr Thr Asp Cys Leu Ser Gln
 185 190 195

Asn Leu Val Val Ile Lys Pro Gly Thr Lys Glu Thr Asp Asn Val
 200 205 210

Cys Gly Thr Leu Pro Ser Phe Ser Ser Ser Thr Ser Pro Ser Pro
 215 220 225

Gly Thr Ala Ile Phe Pro Arg Pro Glu His Met Glu Thr His Glu
 230 235 240

Val Pro Ser Ser Thr Tyr Val Pro Lys Gly Met Asn Ser Thr Glu
 245 250 255

Ser Asn Ser Ser Ala Ser Val Arg Pro Lys Val Leu Ser Ser Ile
 260 265 270

Gln Glu Gly Thr Val Pro Asp Asn Thr Ser Ser Ala Arg Gly Lys
 275 280 285

Glu Asp Val Asn Lys Thr Leu Pro Asn Leu Gln Val Val Asn His
 290 295 300

Gln Gln Gly Pro His His Arg His Ile Leu Lys Leu Leu Pro Ser
 305 310 315

Met Glu Ala Thr Gly Gly Glu Lys Ser Ser Thr Pro Ile Lys Gly

320	325	330
Pro Lys Arg Gly His Pro Arg Gln Asn Leu His		
335	340	345
Lys His Phe Asp		
Ile Asn Glu His Leu Pro Trp Met Ile Val Leu	Phe	Leu
350	355	360
Leu Leu Ile Arg Lys Ser Ser Arg		
Val Leu Val Val Ile Val Val Cys Ser Ile	365	370
Arg		375
Thr Leu Lys Lys Gly Pro Arg Gln Asp Pro Ser Ala Ile	380	385
Val Glu		390
Lys Ala Gly Leu Lys Lys Ser Met Thr Pro Thr Gln Asn Arg	395	400
Glu		405
Lys Trp Ile Tyr Tyr Cys Asn Gly His Gly Ile Asp Ile Leu	410	415
Lys		420
Leu Val Ala Ala Gln Val Gly Ser Gln Trp Lys Asp Ile Tyr	425	430
Gln		435
Phe Leu Cys Asn Ala Ser Glu Arg Glu Val Ala Ala Phe Ser Asn	440	445
		450
Gly Tyr Thr Ala Asp His Glu Arg Ala Tyr Ala Ala Leu Gln His	455	460
		465
Trp Thr Ile Arg Gly Pro Glu Ala Ser Leu Ala Gln Leu Ile Ser	470	475
		480
Ala Leu Arg Gln His Arg Arg Asn Asp Val Val Glu Lys Ile Arg	485	490
		495
Gly Leu Met Glu Asp Thr Thr Gln Leu Glu Thr Asp Lys Leu Ala	500	505
		510
Leu Pro Met Ser Pro Ser Pro Leu Ser Pro Ser Pro Ile Pro Ser	515	520
		525
Pro Asn Ala Lys Leu Glu Asn Ser Ala Leu Leu Thr Val Glu Pro	530	535
		540
Ser Pro Gln Asp Lys Asn Lys Gly Phe Phe Val Asp Glu Ser Glu	545	550
		555
Pro Leu Leu Arg Cys Asp Ser Thr Ser Ser Gly Ser Ser Ala Leu	560	565
		570
Ser Arg Asn Gly Ser Phe Ile Thr Lys Glu Lys Lys Asp Thr Val	575	580
		585
Leu Arg Gln Val Arg Leu Asp Pro Cys Asp Leu Gln Pro Ile Phe	590	595
		600
Asp Asp Met Leu His Phe Leu Asn Pro Glu Glu Leu Arg Val Ile	605	610
		615

Glu Glu Ile Pro Gln Ala Glu Asp Lys Leu Asp Arg Leu Phe Glu
620 625 630

Ile Ile Gly Val Lys Ser Gln Glu Ala Ser Gln Thr Leu Leu Asp
635 640 645

Ser Val Tyr Ser His Leu Pro Asp Leu Leu
650 655

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
gtagcagtgc acatgggttg ttgg 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
accgcacatc ctcagtctct gtcc 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
acgatgatcg cgggctccct tctcctgctt ggattcctta gcaccaccac 50

<210> 68
<211> 2412
<212> DNA
<213> Homo sapiens

<400> 68
atggaaagcc agtaaacactg tggcctacta tctcttccgt ggtgccatct 50
acattttgg gactcggaa ttatgaggtt gaggtggagg cggagccgga 100
tgtcagaggt cctgaaatag tcaccatggg ggaaaatgtt ccgcctgctg 150
ttgaagcccc cttctcattc cgatcgctt ttggccttga tgatttgaaa 200
ataagtcctg ttgcaccaga tgcagatgct gttgctgcac agatcctgac 250

tcgctctgtt gcccaggctg gagtgagtg gcgaaatccc tgctcaactgc 1750
agcctccgct tccctggttc aagcgattct cttgcctcag cttccccagt 1800
agctgggacc acaggtgccc gccaccacac ccaactaatt tttgtatTTT 1850
tagtagagac agggTTTcac catgttggcc aggctgctc cAAACCCCTG 1900
acctcaaATG atgtgcctgc ttcaGCCTCC cacagtgcTG ggattacagg 1950
catggGCCAC cacGCCTAGC cTCACGCTCC tttCTGATCT tcACTAAGAA 2000
caAAAGAAGC agcaacttgc aaggGCGGCC tttCCCACTG gtCCATCTGG 2050
ttttCTCTCC agggTCTTGC aaaATTCCGT acgagataAG cAGTTATGTG 2100
acctCACGTG caaAGCCACC AACAGCCACT cAGAAAAGAC gcACCAGCCC 2150
agaAGTGCAG aactGCAGTC actGCACGTT ttCATCTCTA gggACCAGAA 2200
ccAAACCCAC CCTTTCTACT tCCAAGACTT atTTTCACAT gtGGGGAGGT 2250
taatCTAGGA atGACTCGTT taAGGCCTAT ttTCATGATT tCTTGTAGC 2300
atTTGGTGCT tgACGTATTa ttGTCCTTtG attCCAATA atATGTTCC 2350
ttCCCTCATT gtCTGGCGTG tCTGCgtGGA ctGGTgACGT gaATCAAAT 2400
catCCACTGA aa 2412

<210> 69
<211> 453
<212> PRT
<213> Homo sapiens

<400> 69
Met Gly Glu Asn Asp Pro Pro Ala Val Glu Ala Pro Phe Ser Phe
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Arg Ser Leu Phe Gly Leu Asp Asp Leu Lys Ile Ser Pro Val Ala
20 25 30
Pro Asp Ala Asp Ala Val Ala Ala Gln Ile Leu Ser Leu Leu Pro
35 40 45
Leu Lys Phe Phe Pro Ile Ile Val Ile Gly Ile Ile Ala Leu Ile
50 55 60
Leu Ala Leu Ala Ile Gly Leu Gly Ile His Phe Asp Cys Ser Gly
65 70 75
Lys Tyr Arg Cys Arg Ser Ser Phe Lys Cys Ile Glu Leu Ile Ala
80 85 90
Arg Cys Asp Gly Val Ser Asp Cys Lys Asp Gly Glu Asp Glu Tyr
95 100 105
Arg Cys Val Arg Val Gly Gly Gln Asn Ala Val Leu Gln Val Phe

110	115	120
Thr Ala Ala Ser Trp Lys Thr Met Cys Ser Asp Asp Trp Lys Gly		
125	130	135
His Tyr Ala Asn Val Ala Cys Ala Gln Leu Gly Phe Pro Ser Tyr		
140	145	150
Val Ser Ser Asp Asn Leu Arg Val Ser Ser Leu Glu Gly Gln Phe		
155	160	165
Arg Glu Glu Phe Val Ser Ile Asp His Leu Leu Pro Asp Asp Lys		
170	175	180
Val Thr Ala Leu His His Ser Val Tyr Val Arg Glu Gly Cys Ala		
185	190	195
Ser Gly His Val Val Thr Leu Gln Cys Thr Ala Cys Gly His Arg		
200	205	210
Arg Gly Tyr Ser Ser Arg Ile Val Gly Gly Asn Met Ser Leu Leu		
215	220	225
Ser Gln Trp Pro Trp Gln Ala Ser Leu Gln Phe Gln Gly Tyr His		
230	235	240
Leu Cys Gly Gly Ser Val Ile Thr Pro Leu Trp Ile Ile Thr Ala		
245	250	255
Ala His Cys Val Tyr Asp Leu Tyr Leu Pro Lys Ser Trp Thr Ile		
260	265	270
Gln Val Gly Leu Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His		
275	280	285
Leu Val Glu Lys Ile Val Tyr His Ser Lys Tyr Lys Pro Lys Arg		
290	295	300
Leu Gly Asn Asp Ile Ala Leu Met Lys Leu Ala Gly Pro Leu Thr		
305	310	315
Phe Asn Glu Met Ile Gln Pro Val Cys Leu Pro Asn Ser Glu Glu		
320	325	330
Asn Phe Pro Asp Gly Lys Val Cys Trp Thr Ser Gly Trp Gly Ala		
335	340	345
Thr Glu Asp Gly Gly Asp Ala Ser Pro Val Leu Asn His Ala Ala		
350	355	360
Val Pro Leu Ile Ser Asn Lys Ile Cys Asn His Arg Asp Val Tyr		
365	370	375
Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala Gly Tyr Leu Thr		
380	385	390
Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val		
395	400	405

Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe
410 415 420

Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg
425 430 435

Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp
440 445 450

Leu Lys Thr

<210> 70

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

tgacatcgcc cttatgaagc tggc 24

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

tacacgtccc tgtggttgca gatc 24

<210> 72

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 72

cgttcaatgc agaaatgatc cagcctgtgt gcctgcccaa ctctgaagag 50

<210> 73

<211> 3305

<212> DNA

<213> Homo sapiens

<400> 73

cccacgcgtc cgtcctagtc cccggccaa ctcggacagt ttgctcattt 50

attgcaacgg tcaaggctgg cttgtgccag aacggcgccg ggcgcgcac 100

gcacgcacac acacgggggg aaactttttt aaaaatgaaa ggctagaaga 150

gctcagcggc ggcgcggcgg ctgcgcgagg gctccggagc tgactcgccg 200

aggcagggaaa tccctccggt cgcgacgccc ggccccggct cggcgcccgc 250
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tccatccaag caaactgaat ggcaatgaaa caaactggag aagaaggttag 3100

gagaaaagggc ggtgaactct ggctcttgc tgtggacatg cgtgaccagc 3150
agtactcagg tttgaggggt tgccagaaagc cagggAACCC acagagtcac 3200
caacccttca tttaacaagt aagaatgtta aaaagtgaaa acaatgttaag 3250
agcctaactc catccccgt ggccattact gcataaaaata gagtgcat 3300
gaaat 3305

<210> 74
<211> 735
<212> PRT
<213> Homo sapiens

<400> 74
Met Ala Ala Arg Pro Leu Pro Val Ser Pro Ala Arg Ala Leu Leu
1 5 10 15
Leu Ala Leu Ala Gly Ala Leu Leu Ala Pro Cys Glu Ala Arg Gly
20 25 30
Val Ser Leu Trp Asn Gln Gly Arg Ala Asp Glu Val Val Ser Ala
35 40 45
Ser Val Arg Ser Gly Asp Leu Trp Ile Pro Val Lys Ser Phe Asp
50 55 60
Ser Lys Asn His Pro Glu Val Leu Asn Ile Arg Leu Gln Arg Glu
65 70 75
Ser Lys Glu Leu Ile Ile Asn Leu Glu Arg Asn Glu Gly Leu Ile
80 85 90
Ala Ser Ser Phe Thr Glu Thr His Tyr Leu Gln Asp Gly Thr Asp
95 100 105
Val Ser Leu Ala Arg Asn Tyr Thr Gly His Cys Tyr Tyr His Gly
110 115 120
His Val Arg Gly Tyr Ser Asp Ser Ala Val Ser Leu Ser Thr Cys
125 130 135
Ser Gly Leu Arg Gly Leu Ile Val Phe Glu Asn Glu Ser Tyr Val
140 145 150
Leu Glu Pro Met Lys Ser Ala Thr Asn Arg Tyr Lys Leu Phe Pro
155 160 165
Ala Lys Lys Leu Lys Ser Val Arg Gly Ser Cys Gly Ser His His
170 175 180
Asn Thr Pro Asn Leu Ala Ala Lys Asn Val Phe Pro Pro Pro Ser
185 190 195
Gln Thr Trp Ala Arg Arg His Lys Arg Glu Thr Leu Lys Ala Thr
200 205 210

Lys Tyr Val Glu Leu Val Ile Val Ala Asp Asn Arg Glu Phe Gln
 215 220 225
 Arg Gln Gly Lys Asp Leu Glu Lys Val Lys Gln Arg Leu Ile Glu
 230 235 240
 Ile Ala Asn His Val Asp Lys Phe Tyr Arg Pro Leu Asn Ile Arg
 245 250 255
 Ile Val Leu Val Gly Val Glu Val Trp Asn Asp Met Asp Lys Cys
 260 265 270
 Ser Val Ser Gln Asp Pro Phe Thr Ser Leu His Glu Phe Leu Asp
 275 280 285
 Trp Arg Lys Met Lys Leu Leu Pro Arg Lys Ser His Asp Asn Ala
 290 295 300
 Gln Leu Val Ser Gly Val Tyr Phe Gln Gly Thr Thr Ile Gly Met
 305 310 315
 Ala Pro Ile Met Ser Met Cys Thr Ala Asp Gln Ser Gly Gly Ile
 320 325 330
 Val Met Asp His Ser Asp Asn Pro Leu Gly Ala Ala Val Thr Leu
 335 340 345
 Ala His Glu Leu Gly His Asn Phe Gly Met Asn His Asp Thr Leu
 350 355 360
 Asp Arg Gly Cys Ser Cys Gln Met Ala Val Glu Lys Gly Gly Cys
 365 370 375
 Ile Met Asn Ala Ser Thr Gly Tyr Pro Phe Pro Met Val Phe Ser
 380 385 390
 Ser Cys Ser Arg Lys Asp Leu Glu Thr Ser Leu Glu Lys Gly Met
 395 400 405
 Gly Val Cys Leu Phe Asn Leu Pro Glu Val Arg Glu Ser Phe Gly
 410 415 420
 Gly Gln Lys Cys Gly Asn Arg Phe Val Glu Glu Gly Glu Glu Cys
 425 430 435
 Asp Cys Gly Glu Pro Glu Glu Cys Met Asn Arg Cys Cys Asn Ala
 440 445 450
 Thr Thr Cys Thr Leu Lys Pro Asp Ala Val Cys Ala His Gly Leu
 455 460 465
 Cys Cys Glu Asp Cys Gln Leu Lys Pro Ala Gly Thr Ala Cys Arg
 470 475 480
 Asp Ser Ser Asn Ser Cys Asp Leu Pro Glu Phe Cys Thr Gly Ala
 485 490 495
 Ser Pro His Cys Pro Ala Asn Val Tyr Leu His Asp Gly His Ser

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Cys Gln Asp Val Asp Gly Tyr Cys Tyr Asn Gly Ile Cys Gln Thr		
515	520	525
His Glu Gln Gln Cys Val Thr Leu Trp Gly Pro Gly Ala Lys Pro		
530	535	540
Ala Pro Gly Ile Cys Phe Glu Arg Val Asn Ser Ala Gly Asp Pro		
545	550	555
Tyr Gly Asn Cys Gly Lys Val Ser Lys Ser Ser Phe Ala Lys Cys		
560	565	570
Glu Met Arg Asp Ala Lys Cys Gly Lys Ile Gln Cys Gln Gly Gly		
575	580	585
Ala Ser Arg Pro Val Ile Gly Thr Asn Ala Val Ser Ile Glu Thr		
590	595	600
Asn Ile Pro Leu Gln Gln Gly Gly Arg Ile Leu Cys Arg Gly Thr		
605	610	615
His Val Tyr Leu Gly Asp Asp Met Pro Asp Pro Gly Leu Val Leu		
620	625	630
Ala Gly Thr Lys Cys Ala Asp Gly Lys Ile Cys Leu Asn Arg Gln		
635	640	645
Cys Gln Asn Ile Ser Val Phe Gly Val His Glu Cys Ala Met Gln		
650	655	660
Cys His Gly Arg Gly Val Cys Asn Asn Arg Lys Asn Cys His Cys		
665	670	675
Glu Ala His Trp Ala Pro Pro Phe Cys Asp Lys Phe Gly Phe Gly		
680	685	690
Gly Ser Thr Asp Ser Gly Pro Ile Arg Gln Ala Glu Ala Arg Gln		
695	700	705
Glu Ala Ala Glu Ser Asn Arg Glu Arg Gly Gln Gly Gln Glu Pro		
710	715	720
Val Gly Ser Gln Glu His Ala Ser Thr Ala Ser Leu Thr Leu Ile		
725	730	735

<210> 75
 <211> 483
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> 30, 94, 143, 156, 163, 179, 193, 369, 371, 381, 390, 473
 <223> unknown base

<400> 75

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ctaccaggaa agtttgcaga aacagtgcac ggaaggcagc ganttcctgg 150
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agcaagggtt gggcccagtg tccccttcc ccagtgcac ctcagccttg 350
gcagccctga taactggnt ntggctgcaa nttaatgctn tgatatggct 400
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gagaccctgc cacccattcc atntccatcc aag 483

<210> 76

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 76

gtctcagcac gtgttctggc ctcaggg 27

<210> 77

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 77

catgagccatg tgcacggc 18

<210> 78

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 78

tacctgcacg atgggcac 18

<210> 79

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
cactgggcac ctcccttc 18

<210> 80
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
ctccaggctg gtctccaagt ccttcc 26

<210> 81
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
tccctgttgg actctgcagc ttcc 24

<210> 82
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 82
cttcgctggg aagagtttg 19

<210> 83
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 83
gtgcaaccaa cagatacaaaa ctcttcccag cgaagaagct gaaaagcgtc 50

<210> 84
<211> 1714
<212> DNA
<213> Homo sapiens

<400> 84
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aaccacaccc ggccacaaac ttttaagaa gttaatgaaa ccataccccc 200
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<210> 85
<211> 67
<212> PRT
<213> Homo sapiens

<400> 85
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Leu Ala Leu Leu Leu Pro Val Gln Val Ser Ser Phe Val Pro Leu
20 25 30
Thr Ser Met Pro Glu Ala Thr Ala Ala Glu Thr Thr Lys Pro Ser
35 40 45
Asn Ser Ala Leu Gln Pro Thr Ala Gly Leu Leu Val Val Leu Leu
50 55 60
Ala Leu Leu His Leu Tyr His
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<210> 86
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 86
acgggcacac tggatcccaa atg 23

<210> 87
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
ggtagagatg tagaaggca agcaagacc 29

<210> 88
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
gctccctacc cgtgcaggtt tcttcatttg ttcccttaac cagtatgccg 50

<210> 89
<211> 2956
<212> DNA
<213> Homo sapiens

<400> 89
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aggccggccgc ggcggccggcg gacggggccc ccgcggcaga cggcgaggac 200
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<210> 90
<211> 432
<212> PRT
<213> Homo sapiens

<400> 90
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Ala Ala Leu Thr Ala Leu Leu Leu Leu Gly His Gly Gly
20 25 30
Gly Gly Arg Trp Gly Ala Arg Ala Gln Glu Ala Ala Ala Ala
35 40 45
Ala Asp Gly Pro Pro Ala Ala Asp Gly Glu Asp Gly Gln Asp Pro
50 55 60
His Ser Lys His Leu Tyr Thr Ala Asp Met Phe Thr His Gly Ile
65 70 75
Gln Ser Ala Ala His Phe Val Met Phe Phe Ala Pro Trp Cys Gly
80 85 90
His Cys Gln Arg Leu Gln Pro Thr Trp Asn Asp Leu Gly Asp Lys
95 100 105
Tyr Asn Ser Met Glu Asp Ala Lys Val Tyr Val Ala Lys Val Asp
110 115 120
Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly Val Arg Gly
125 130 135
Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala Val Lys
140 145 150
Tyr Gln Gly Pro Arg Asp Phe Gln Thr Leu Glu Asn Trp Met Leu
155 160 165
Gln Thr Leu Asn Glu Glu Pro Val Thr Pro Glu Pro Glu Val Glu
170 175 180

Pro Pro Ser Ala Pro Glu Leu Lys Gln Gly Leu Tyr Glu Leu Ser
185 190 195

Ala Ser Asn Phe Glu Leu His Val Ala Gln Gly Asp His Phe Ile
200 205 210

Lys Phe Phe Ala Pro Trp Cys Gly His Cys Lys Ala Leu Ala Pro
215 220 225

Thr Trp Glu Gln Leu Ala Leu Gly Leu Glu His Ser Glu Thr Val
230 235 240

Lys Ile Gly Lys Val Asp Cys Thr Gln His Tyr Glu Leu Cys Ser
245 250 255

Gly Asn Gln Val Arg Gly Tyr Pro Thr Leu Leu Trp Phe Arg Asp
260 265 270

Gly Lys Lys Val Asp Gln Tyr Lys Gly Lys Arg Asp Leu Glu Ser
275 280 285

Leu Arg Glu Tyr Val Glu Ser Gln Leu Gln Arg Thr Glu Thr Gly
290 295 300

Ala Thr Glu Thr Val Thr Pro Ser Glu Ala Pro Val Leu Ala Ala
305 310 315

Glu Pro Glu Ala Asp Lys Gly Thr Val Leu Ala Leu Thr Glu Asn
320 325 330

Asn Phe Asp Asp Thr Ile Ala Glu Gly Ile Thr Phe Ile Lys Phe
335 340 345

Tyr Ala Pro Trp Cys Gly His Cys Lys Thr Leu Ala Pro Thr Trp
350 355 360

Glu Glu Leu Ser Lys Lys Glu Phe Pro Gly Leu Ala Gly Val Lys
365 370 375

Ile Ala Glu Val Asp Cys Thr Ala Glu Arg Asn Ile Cys Ser Lys
380 385 390

Tyr Ser Val Arg Gly Tyr Pro Thr Leu Leu Leu Phe Arg Gly Gly
395 400 405

Lys Lys Val Ser Glu His Ser Gly Gly Arg Asp Leu Asp Ser Leu
410 415 420

His Arg Phe Val Leu Ser Gln Ala Lys Asp Glu Leu
425 430

<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 91
atgttcttcg cgccctggtg 20

<210> 92
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
ccaagccaaac acactctaca g 21

<210> 93
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
aagtggtcgc cttgtgcaac gtgc 24

<210> 94
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
ggtcaaaggg gatatatcgc cac 23

<210> 95
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
gcatggaaga tgccaaagtc tatgtggcta aagtggactg cacggccca 49

<210> 96
<211> 1016
<212> DNA
<213> Homo sapiens

<400> 96
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gtctggatat tgatagccgt cctaccgctg aagtctgtgc cacacacaca 150

atttcaccag gacccaaagg agatgatggt gaaaaaggag atccaggaga 200
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aaaaaaaaaa aaaaaaa 1016

<210> 97
<211> 277
<212> PRT
<213> Homo sapiens

<400> 97
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20 25 30
Asp Ser Arg Pro Thr Ala Glu Val Cys Ala Thr His Thr Ile Ser
35 40 45
Pro Gly Pro Lys Gly Asp Asp Gly Glu Lys Gly Asp Pro Gly Glu
50 55 60
Glu Gly Lys His Gly Lys Val Gly Arg Met Gly Pro Lys Gly Ile
65 70 75
Lys Gly Glu Leu Gly Asp Met Gly Asp Gln Gly Asn Ile Gly Lys

80	85	90
Thr Gly Pro Ile Gly Lys Lys Gly Asp Lys	Gly Glu Lys Gly Leu	
95	100	105
Leu Gly Ile Pro Gly Glu Lys Gly Lys Ala	Gly Thr Val Cys Asp	
110	115	120
Cys Gly Arg Tyr Arg Lys Phe Val Gly Gln	Leu Asp Ile Ser Ile	
125	130	135
Ala Arg Leu Lys Thr Ser Met Lys Phe Val	Lys Asn Val Ile Ala	
140	145	150
Gly Ile Arg Glu Thr Glu Glu Lys Phe Tyr	Tyr Ile Val Gln Glu	
155	160	165
Glu Lys Asn Tyr Arg Glu Ser Leu Thr His	Cys Arg Ile Arg Gly	
170	175	180
Gly Met Leu Ala Met Pro Lys Asp Glu Ala	Ala Asn Thr Leu Ile	
185	190	195
Ala Asp Tyr Val Ala Lys Ser Gly Phe Phe	Arg Val Phe Ile Gly	
200	205	210
Val Asn Asp Leu Glu Arg Glu Gly Gln	Tyr Met Ser Thr Asp Asn	
215	220	225
Thr Pro Leu Gln Asn Tyr Ser Asn Trp Asn	Glu Gly Glu Pro Ser	
230	235	240
Asp Pro Tyr Gly His Glu Asp Cys Val Glu	Met Leu Ser Ser Gly	
245	250	255
Arg Trp Asn Asp Thr Glu Cys His Leu Thr	Met Tyr Phe Val Cys	
260	265	270
Glu Phe Ile Lys Lys Lys Lys		
275		

<210> 98

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 98

cgctgactat gttgccaaaga gtgg 24

<210> 99

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe
<400> 99
gatgatggag gctccatacc tcag 24

<210> 100
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 100
gtgttcattg gcgtaatga ctttcaaagg gagggacagt acatgttcac 50

<210> 101
<211> 2574
<212> DNA
<213> Homo sapiens

<400> 101
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<210> 102
<211> 730
<212> PRT
<213> Homo sapiens

<400> 102
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35 40 45
Gly Ser Met Ala Ala Leu Leu Leu Pro Leu Leu Leu Leu
50 55 60
Pro Leu Leu Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp
65 70 75
Leu Pro Ala Asp Leu Ala Phe Ala Val Arg Ala Leu Cys Cys Lys
80 85 90
Arg Ala Leu Arg Ala Arg Ala Leu Ala Ala Ala Ala Asp Pro
95 100 105
Glu Gly Pro Glu Gly Gly Cys Ser Leu Ala Trp Arg Leu Ala Glu
110 115 120
Leu Ala Gln Gln Arg Ala Ala His Thr Phe Leu Ile His Gly Ser
125 130 135
Arg Arg Phe Ser Tyr Ser Glu Ala Glu Arg Glu Ser Asn Arg Ala
140 145 150
Ala Arg Ala Phe Leu Arg Ala Leu Gly Trp Asp Trp Gly Pro Asp
155 160 165
Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu Gly Glu Arg Ala
170 175 180
Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly Ala Glu Phe
185 190 195
Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Ala Ala Ala Pro
200 205 210

Leu Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly Pro
 215 220 225
 Glu Phe Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg
 230 235 240
 Thr Ala Phe Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His
 245 250 255
 Cys Leu Arg Ser Cys Gly Ala Arg Ala Leu Val Leu Ala Pro Glu
 260 265 270
 Phe Leu Glu Ser Leu Glu Pro Asp Leu Pro Ala Leu Arg Ala Met
 275 280 285
 Gly Leu His Leu Trp Ala Ala Gly Pro Gly Thr His Pro Ala Gly
 290 295 300
 Ile Ser Asp Leu Leu Ala Glu Val Ser Ala Glu Val Asp Gly Pro
 305 310 315
 Val Pro Gly Tyr Leu Ser Ser Pro Gln Ser Ile Thr Asp Thr Cys
 320 325 330
 Leu Tyr Ile Phe Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala
 335 340 345
 Arg Ile Ser His Leu Lys Ile Leu Gln Cys Gln Gly Phe Tyr Gln
 350 355 360
 Leu Cys Gly Val His Gln Glu Asp Val Ile Tyr Leu Ala Leu Pro
 365 370 375
 Leu Tyr His Met Ser Gly Ser Leu Leu Gly Ile Val Gly Cys Met
 380 385 390
 Gly Ile Gly Ala Thr Val Val Leu Lys Ser Lys Phe Ser Ala Gly
 395 400 405
 Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val Thr Val Phe Gln
 410 415 420
 Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln Pro Pro Ser
 425 430 435
 Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly Ser Gly
 440 445 450
 Leu Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly Pro
 455 460 465
 Leu Gln Val Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala
 470 475 480
 Thr Ile Asn Tyr Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser
 485 490 495
 Trp Leu Tyr Lys His Ile Phe Pro Phe Ser Leu Ile Arg Tyr Asp

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515	520	525
Ala Thr Ser Pro Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser		
530	535	540
Gln Gln Ser Pro Phe Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala		
545	550	555
Gln Gly Lys Leu Leu Lys Asp Val Phe Arg Pro Gly Asp Val Phe		
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Phe Asn Thr Gly Asp Leu Leu Val Cys Asp Asp Gln Gly Phe Leu		
575	580	585
Arg Phe His Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly Glu		
590	595	600
Asn Val Ala Thr Thr Glu Val Ala Glu Val Phe Glu Ala Leu Asp		
605	610	615
Phe Leu Gln Glu Val Asn Val Tyr Gly Val Thr Val Pro Gly His		
620	625	630
Glu Gly Arg Ala Gly Met Ala Ala Leu Val Leu Arg Pro Pro His		
635	640	645
Ala Leu Asp Leu Met Gln Leu Tyr Thr His Val Ser Glu Asn Leu		
650	655	660
Pro Pro Tyr Ala Arg Pro Arg Phe Leu Arg Leu Gln Glu Ser Leu		
665	670	675
Ala Thr Thr Glu Thr Phe Lys Gln Gln Lys Val Arg Met Ala Asn		
680	685	690
Glu Gly Phe Asp Pro Ser Thr Leu Ser Asp Pro Leu Tyr Val Leu		
695	700	705
Asp Gln Ala Val Gly Ala Tyr Leu Pro Leu Thr Thr Ala Arg Tyr		
710	715	720
Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile		
725	730	

<210> 103

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 103

gagagccatg gggctccacc tg 22

<210> 104
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 104
ggagaatgtg gccacaac 18

<210> 105
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 105
gccctggcac agtgactcca tagacg 26

<210> 106
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 106
atccacttca gcggacac 18

<210> 107
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 107
ccagtgccag gatacctctc ttccccccag agcataacag acacg 45

<210> 108
<211> 2579
<212> DNA
<213> Homo sapiens

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acgcgcgcac acacactcgc tctcgcttgt ccattccctt cccgggggag 150
ccggcgcgcg ctccccaccc ttggccacac tccggcgagc cgagccccga 200

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acgctggca gggcgagga gcgcgcgcgc gcctctggcg ggcttcggc 500
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 gtgagggttt ttttttctc attaaaaat 2579

<210> 109

<211> 555

<212> PRT

<213> Homo sapiens

<400> 109

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Ley	Ley	Ser	Ley	Pro	Ala	Gly	Ala	Asp	Val	Lys	Ala	Arg	Ser	Cys
								20	25				30	

Gly	Glu	Val	Arg	Gln	Ala	Tyr	Gly	Ala	Lys	Gly	Phe	Ser	Ley	Ala
								35	40				45	

Asp	Ile	Pro	Tyr	Gln	Glu	Ile	Ala	Gly	Glu	His	Ley	Arg	Ile	Cys
								50	55				60	

Pro	Gln	Glu	Tyr	Thr	Cys	Cys	Thr	Thr	Glu	Met	Glu	Asp	Lys	Ley
								65	70				75	

Ser Gln Gln Ser Lys Leu Glu Phe Glu Asn Leu Val Glu Glu Thr
 80 85 90

Ser His Phe Val Arg Thr Thr Phe Val Ser Arg His Lys Lys Phe
 95 100 105

Asp Glu Phe Phe Arg Glu Leu Leu Glu Asn Ala Glu Lys Ser Leu
 110 115 120

Asn Asp Met Phe Val Arg Thr Tyr Gly Met Leu Tyr Met Gln Asn
 125 130 135

Ser Glu Val Phe Gln Asp Leu Phe Thr Glu Leu Lys Arg Tyr Tyr
 140 145 150

Thr Gly Gly Asn Val Asn Leu Glu Glu Met Leu Asn Asp Phe Trp
 155 160 165

Ala Arg Leu Leu Glu Arg Met Phe Gln Leu Ile Asn Pro Gln Tyr
 170 175 180

His Phe Ser Glu Asp Tyr Leu Glu Cys Val Ser Lys Tyr Thr Asp
 185 190 195

Gln Leu Lys Pro Phe Gly Asp Val Pro Arg Lys Leu Lys Ile Gln
 200 205 210

Val Thr Arg Ala Phe Ile Ala Ala Arg Thr Phe Val Gln Gly Leu
 215 220 225

Thr Val Gly Arg Glu Val Ala Asn Arg Val Ser Lys Val Ser Pro
 230 235 240

Thr Pro Gly Cys Ile Arg Ala Leu Met Lys Met Leu Tyr Cys Pro
 245 250 255

Tyr Cys Arg Gly Leu Pro Thr Val Arg Pro Cys Asn Asn Tyr Cys
 260 265 270

Leu Asn Val Met Lys Gly Cys Leu Ala Asn Gln Ala Asp Leu Asp
 275 280 285

Thr Glu Trp Asn Leu Phe Ile Asp Ala Met Leu Leu Val Ala Glu
 290 295 300

Arg Leu Glu Gly Pro Phe Asn Ile Glu Ser Val Met Asp Pro Ile
 305 310 315

Asp Val Lys Ile Ser Glu Ala Ile Met Asn Met Gln Glu Asn Ser
 320 325 330

Met Gln Val Ser Ala Lys Val Phe Gln Gly Cys Gly Gln Pro Lys
 335 340 345

Pro Ala Pro Ala Leu Arg Ser Ala Arg Ser Ala Pro Glu Asn Phe
 350 355 360

Asn Thr Arg Phe Arg Pro Tyr Asn Pro Glu Glu Arg Pro Thr Thr

365	370	375
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380	385	390
Lys Leu Lys Leu Ser Lys Lys Val Trp Ser Ala Leu Pro Tyr Thr		
395	400	405
Ile Cys Lys Asp Glu Ser Val Thr Ala Gly Thr Ser Asn Glu Glu		
410	415	420
Glu Cys Trp Asn Gly His Ser Lys Ala Arg Tyr Leu Pro Glu Ile		
425	430	435
Met Asn Asp Gly Leu Thr Asn Gln Ile Asn Asn Pro Glu Val Asp		
440	445	450
Val Asp Ile Thr Arg Pro Asp Thr Phe Ile Arg Gln Gln Ile Met		
455	460	465
Ala Leu Arg Val Met Thr Asn Lys Leu Lys Asn Ala Tyr Asn Gly		
470	475	480
Asn Asp Val Asn Phe Gln Asp Thr Ser Asp Glu Ser Ser Gly Ser		
485	490	495
Gly Ser Gly Ser Gly Cys Met Asp Asp Val Cys Pro Thr Glu Phe		
500	505	510
Glu Phe Val Thr Thr Glu Ala Pro Ala Val Asp Pro Asp Arg Arg		
515	520	525
Glu Val Asp Ser Ser Ala Ala Gln Arg Gly His Ser Leu Leu Ser		
530	535	540
Trp Ser Leu Thr Cys Ile Val Leu Ala Leu Gln Arg Leu Cys Arg		
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<210> 110
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 110
aagcgtgaca gcgggcacgt c 21

<210> 111
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 111

tgcacagtct ctgcagtgcc cagg 24

<210> 112

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

gaatgctgga acgggcacag caaagccaga tacttgctg 40

<210> 113

<211> 4649

<212> DNA

<213> Homo sapiens

<400> 113

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aataagtttag ctgagaaaaac gcacgcagtt tgcagcgcct gcgcgggtg 100

cgc当地 actac gcaaagacca agcgggctcc gcgcggaccg gccgcggggc 150

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ccgggtccact acggcagttt atctgtctga tcagagccag acgcgcacgct 400

tccacttcgc agttcttcc aggtgtgggg accgcaggac agacggccga 450

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<210> 114

<211> 515

<212> PRT

<213> Homo sapiens

<400> 114

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Gln	Ala	Cys	Val	Cys	Pro	Gly	Lys	Met	Leu	Ala	Met	Gly	Ala	Leu
					20			25			30			

Ala	Gly	Phe	Trp	Ile	Leu	Cys	Leu	Leu	Thr	Tyr	Gly	Tyr	Leu	Ser
				35				40			45			

Trp	Gly	Gln	Ala	Leu	Glu	Glu	Glu	Glu	Gly	Ala	Leu	Leu	Ala	
				50				55			60			

Gln	Ala	Gly	Glu	Lys	Leu	Glu	Pro	Ser	Thr	Thr	Ser	Thr	Ser	Gln
				65			70		75					

Pro	His	Leu	Ile	Phe	Ile	Leu	Ala	Asp	Asp	Gln	Gly	Phe	Arg	Asp
				80				85		90				

Val	Gly	Tyr	His	Gly	Ser	Glu	Ile	Lys	Thr	Pro	Thr	Leu	Asp	Lys
				95				100			105			

Leu Ala Ala Glu Gly Val Lys Leu Glu Asn Tyr Tyr Val Gln Pro

	110	115	120
Ile Cys Thr Pro Ser Arg Ser Gln Phe Ile Thr Gly Lys Tyr Gln			
125	130	135	
Ile His Thr Gly Leu Gln His Ser Ile Ile Arg Pro Thr Gln Pro			
140	145	150	
Asn Cys Leu Pro Leu Asp Asn Ala Thr Leu Pro Gln Lys Leu Lys			
155	160	165	
Glu Val Gly Tyr Ser Thr His Met Val Gly Lys Trp His Leu Gly			
170	175	180	
Phe Asn Arg Lys Glu Cys Met Pro Thr Arg Arg Gly Phe Asp Thr			
185	190	195	
Phe Phe Gly Ser Leu Leu Gly Ser Gly Asp Tyr Tyr Thr His Tyr			
200	205	210	
Lys Cys Asp Ser Pro Gly Met Cys Gly Tyr Asp Leu Tyr Glu Asn			
215	220	225	
Asp Asn Ala Ala Trp Asp Tyr Asp Asn Gly Ile Tyr Ser Thr Gln			
230	235	240	
Met Tyr Thr Gln Arg Val Gln Gln Ile Leu Ala Ser His Asn Pro			
245	250	255	
Thr Lys Pro Ile Phe Leu Tyr Thr Ala Tyr Gln Ala Val His Ser			
260	265	270	
Pro Leu Gln Ala Pro Gly Arg Tyr Phe Glu His Tyr Arg Ser Ile			
275	280	285	
Ile Asn Ile Asn Arg Arg Arg Tyr Ala Ala Met Leu Ser Cys Leu			
290	295	300	
Asp Glu Ala Ile Asn Asn Val Thr Leu Ala Leu Lys Thr Tyr Gly			
305	310	315	
Phe Tyr Asn Asn Ser Ile Ile Ile Tyr Ser Ser Asp Asn Gly Gly			
320	325	330	
Gln Pro Thr Ala Gly Gly Ser Asn Trp Pro Leu Arg Gly Ser Lys			
335	340	345	
Gly Thr Tyr Trp Glu Gly Gly Ile Arg Ala Val Gly Phe Val His			
350	355	360	
Ser Pro Leu Leu Lys Asn Lys Gly Thr Val Cys Lys Glu Leu Val			
365	370	375	
His Ile Thr Asp Trp Tyr Pro Thr Leu Ile Ser Leu Ala Glu Gly			
380	385	390	
Gln Ile Asp Glu Asp Ile Gln Leu Asp Gly Tyr Asp Ile Trp Glu			
395	400	405	

Thr Ile Ser Glu Gly Leu Arg Ser Pro Arg Val Asp Ile Leu His
410 415 420

Asn Ile Asp Pro Tyr Thr Pro Arg Gln Lys Met Ala Pro Gly Gln
425 430 435

Gln Ala Met Gly Ser Gly Thr Leu Gln Ser Ser Gln Pro Ser Glu
440 445 450

Cys Ser Thr Gly Asn Cys Leu Gln Glu Ile Leu Ala Thr Ala Thr
455 460 465

Gly Ser Pro Leu Ser Leu Ser Ala Thr Trp Asp Arg Thr Gly Gly
470 475 480

Thr Met Asn Gly Ser Pro Cys Gln Leu Ala Lys Val Tyr Gly Phe
485 490 495

Ser Thr Ser Gln Pro Thr His Met Arg Gly Trp Thr Tyr Leu Thr
500 505 510

Gly Ile Gln Glu Ser
515

<210> 115

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 115

cccaacccaa ctgtttacct ctgg 24

<210> 116

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 116

ctctctgagt gtacatctgt gtgg 24

<210> 117

<211> 53

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<220>

<221> unsure

<222> 33

<223> unknown base

<400> 117
gccaccctac ctcagaaact gaaggagggtt ggntattcaa cgcatatgg 50
cg 53

<210> 118
<211> 2260
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 2009, 2026, 2033, 2055, 2074, 2078, 2086
<223> unknown base

<400> 118
cggacgcgtg ggtgcgagtg gagcggagga cccgagcggc tgaggagaga 50
ggaggcggcg gcttagctgc tacgggtcc ggccggcgcc ctcccgggg 100
gggctcagga ggaggaagga ggaccgtgc gagaatgcct ctgcctgga 150
gccttgcgt cccgctgctg ctctcctgg tggcaggtgg tttcgggaaac 200
gcggccagtca aaggcatca cgggttgta gcatcggcac gtcagcctgg 250
ggtctgtcac tatgaaacta aactggcctg ctgctacggc tggagaagaa 300
acagcaaggg agtctgtgaa gctacatgcg aacctggatg taagtttgt 350
gagtgcgtgg gaccaaacaa atgcagatgc tttccaggat acaccggaa 400
aacctgcagt caagatgtga atgagtgtgg aatgaaaccc cggccatgcc 450
aacacagatgtgaaataca cacgaaagct acaagtgcgtt ttgcctcagt 500
ggccacatgc tcatgccaga tgctacgtgt gtgaactcta ggacatgtgc 550
catgataaac tgtcagtaca gctgtgaaga cacagaagaa gggccacagt 600
gcctgtgtcc atcctcagga ctccgcctgg ccccaaatgg aagagactgt 650
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aagatgtgtg aacacatttgaagctacta ctgcaaatgt cacattggtt 750
tcgaactgca atatatcagt ggacgatatg actgtataga tataaatgaa 800
tgtactatgg atagccatac gtgcagccac catgccaatt gctcaatac 850
ccaagggtcc ttcaagtgtaa atgcaagca gggatataaa ggcaatggac 900
ttcgggttcc tgctatccct gaaaattctg tgaaggaagt cctcagagca 950
cctggtagcca tcaaagacag aatcaagaag ttgcttgctc aaaaaacag 1000
catgaaaaaag aaggcaaaaa ttaaaaatgt taccccgagaa cccaccagga 1050

生物信息学实验

ctcctacccc taaggtgaac ttgcagccct tcaactatga agagatagtt 1100
tccagaggcg ggaactctca tggaggtaaa aaaggaaatg aagagaaaatg 1150
aaagaggggc ttgaggatga gaaaagagaa gagaaagccc tgaagaatga 1200
catagaggag cgaagcctgc gaggagatgt gttttccct aaggtgaatg 1250
aagcaggtga attcggcctg attctggtcc aaaggaaagc gctaacttcc 1300
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caatatttgc tttaaatatc atatcactgt atcttctcag tcatttctga 2000
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cctcngtata tctgatttgt atangtangt tgatngcctt ctctctacaa 2100
catttctaga aaatagaaaaaaa aaaagcacag agaaatgttt aactgtttga 2150
ctcttatgtat acttcttgaa aactatgaca tcaaagatag actttgcct 2200
aagtggctta gctgggtctt tcataccaa acttgtatTTT ttaattctt 2250
gtaataataa 2260

<210> 119
<211> 338
<212> PRT
<213> Homo sapiens

<400> 119
Met Pro Leu Pro Trp Ser Leu Ala Leu Pro Leu Leu Leu Ser Trp
1 5 10 15

Val Ala Gly Gly Phe Gly Asn Ala Ala Ser Ala Arg His His Gly
 20 25 30
 Leu Leu Ala Ser Ala Arg Gln Pro Gly Val Cys His Tyr Gly Thr
 35 40 45
 Lys Leu Ala Cys Cys Tyr Gly Trp Arg Arg Asn Ser Lys Gly Val
 50 55 60
 Cys Glu Ala Thr Cys Glu Pro Gly Cys Lys Phe Gly Glu Cys Val
 65 70 75
 Gly Pro Asn Lys Cys Arg Cys Phe Pro Gly Tyr Thr Gly Lys Thr
 80 85 90
 Cys Ser Gln Asp Val Asn Glu Cys Gly Met Lys Pro Arg Pro Cys
 95 100 105
 Gln His Arg Cys Val Asn Thr His Gly Ser Tyr Lys Cys Phe Cys
 110 115 120
 Leu Ser Gly His Met Leu Met Pro Asp Ala Thr Cys Val Asn Ser
 125 130 135
 Arg Thr Cys Ala Met Ile Asn Cys Gln Tyr Ser Cys Glu Asp Thr
 140 145 150
 Glu Glu Gly Pro Gln Cys Leu Cys Pro Ser Ser Gly Leu Arg Leu
 155 160 165
 Ala Pro Asn Gly Arg Asp Cys Leu Asp Ile Asp Glu Cys Ala Ser
 170 175 180
 Gly Lys Val Ile Cys Pro Tyr Asn Arg Arg Cys Val Asn Thr Phe
 185 190 195
 Gly Ser Tyr Tyr Cys Lys Cys His Ile Gly Phe Glu Leu Gln Tyr
 200 205 210
 Ile Ser Gly Arg Tyr Asp Cys Ile Asp Ile Asn Glu Cys Thr Met
 215 220 225
 Asp Ser His Thr Cys Ser His His Ala Asn Cys Phe Asn Thr Gln
 230 235 240
 Gly Ser Phe Lys Cys Lys Cys Lys Gln Gly Tyr Lys Gly Asn Gly
 245 250 255
 Leu Arg Cys Ser Ala Ile Pro Glu Asn Ser Val Lys Glu Val Leu
 260 265 270
 Arg Ala Pro Gly Thr Ile Lys Asp Arg Ile Lys Lys Leu Leu Ala
 275 280 285
 His Lys Asn Ser Met Lys Lys Lys Ala Lys Ile Lys Asn Val Thr
 290 295 300
 Pro Glu Pro Thr Arg Thr Pro Thr Pro Lys Val Asn Leu Gln Pro

305

310

315

Phe Asn Tyr Glu Glu Ile Val Ser Arg Gly Gly Asn Ser His Gly
320 325 330

Gly Lys Lys Gly Asn Glu Glu Lys
335

<210> 120

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 120

cctcagtggc cacatgctca tg 22

<210> 121

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 121

ggctgcacgt atggctatcc atag 24

<210> 122

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 122

gataaaactgt cagtagct gtgaagacac agaagaagg ccacagtgcc 50

<210> 123

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 123

gggagctgct gctgtggctg ctgggtctgt gcgcgcgtgct cctgctttg 50

gtgcagctgc tgcgcattcct gagggctgac ggccacctga cgctactatg 100

ggcccgagtgg cagggacgac gcccagaatg ggagctgact gatatggtg 150

tgtgggtgac tggagcctcg agtggaaattg gtgaggagct ggcttaccag 200

ttgtctaaac taggagttc tcttgtgctg tcagccagaa gagtgcatga 250

gctggaaagg gtgaaaagaa gatgcctaga gaatggcaat taaaaagaaa 300

aagatatact tgtttgccc cttgacactga ccgacactgg ttcccatgaa 350
gcggctacca aagctgttct ccaggagttt ggtagaatcg acattctgg 400
caacaatggt ggaatgtccc agcgttctct gtgcattggat accagcttgg 450
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aatggaaaac atgaaaacag caatcttctt atgcttctga ataatcaaag 1100
actaatttgt gattttactt tttaatagat atgactttgc ttccaacatg 1150
gaatgaaata aaaaataaaat aataaaagat tgccatgaat cttgaaaa 1199

<210> 124
<211> 289
<212> PRT
<213> Homo sapiens

<400> 124
Met Val Val Trp Val Thr Gly Ala Ser Ser Gly Ile Gly Glu Glu
1 5 10 15
Leu Ala Tyr Gln Leu Ser Lys Leu Gly Val Ser Leu Val Leu Ser
20 25 30
Ala Arg Arg Val His Glu Leu Glu Arg Val Lys Arg Arg Cys Leu
35 40 45
Glu Asn Gly Asn Leu Lys Glu Lys Asp Ile Leu Val Leu Pro Leu
50 55 60
Asp Leu Thr Asp Thr Gly Ser His Glu Ala Ala Thr Lys Ala Val
65 70 75
Leu Gln Glu Phe Gly Arg Ile Asp Ile Leu Val Asn Asn Gly Gly

80	85	90
Met Ser Gln Arg Ser Leu Cys Met Asp Thr Ser Leu Asp Val Tyr		
95	100	105
Arg Lys Leu Ile Glu Leu Asn Tyr Leu Gly Thr Val Ser Leu Thr		
110	115	120
Lys Cys Val Leu Pro His Met Ile Glu Arg Lys Gln Gly Lys Ile		
125	130	135
Val Thr Val Asn Ser Ile Leu Gly Ile Ile Ser Val Pro Leu Ser		
140	145	150
Ile Gly Tyr Cys Ala Ser Lys His Ala Leu Arg Gly Phe Phe Asn		
155	160	165
Gly Leu Arg Thr Glu Leu Ala Thr Tyr Pro Gly Ile Ile Val Ser		
170	175	180
Asn Ile Cys Pro Gly Pro Val Gln Ser Asn Ile Val Glu Asn Ser		
185	190	195
Leu Ala Gly Glu Val Thr Lys Thr Ile Gly Asn Asn Gly Asp Gln		
200	205	210
Ser His Lys Met Thr Thr Ser Arg Cys Val Arg Leu Met Leu Ile		
215	220	225
Ser Met Ala Asn Asp Leu Lys Glu Val Trp Ile Ser Glu Gln Pro		
230	235	240
Phe Leu Leu Val Thr Tyr Leu Trp Gln Tyr Met Pro Thr Trp Ala		
245	250	255
Trp Trp Ile Thr Asn Lys Met Gly Lys Lys Arg Ile Glu Asn Phe		
260	265	270
Lys Ser Gly Val Asp Ala Asp Ser Ser Tyr Phe Lys Ile Phe Lys		
275	280	285
Thr Lys His Asp		

<210> 125
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 125
 gcaatgaact gggagctgc 19

<210> 126
 <211> 19
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 126
ctgtgaatag catcctggg 19

<210> 127

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 127
cttttcaagc cactggagg 20

<210> 128

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 128
ctgttagacat ccaagctggatcc 24

<210> 129

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 129
aagagtctgc atccacacacca ctc 23

<210> 130

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 130
acctgacgct actatgggcc gagtggcagg gacgacgccc agaatg 46

<210> 131

<211> 2365

<212> DNA

<213> Homo sapiens

<400> 131

gcgacgtggg caccgccatc agctgttcgc gcgttttctc ctccaggtgg 50
ggcaggggtt tcgggctggt ggagcatgtg ctgggacagg acagcatcct 100
caatcaatcc aacagcatat tcgggtgcat cttctacaca ctacagctat 150
tgttaggttg cctgcggaca cgctgggect ctgtcctgat gctgctgagc 200
tccctggtgt ctctcgctgg ttctgtctac ctggcctgga tcctgttctt 250
cgtgctctat gatttctgca ttgtttgtat caccacctat gctatcaacg 300
tgagcctgat gtggctcagt ttccggaagg tccaagaacc ccagggcaag 350
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cccgagatg agtatgagg acagctgtgt agcctgtggta tccttgagga 1250
cagcaggatcc ccaggcagga gcaccctccc catggccctg ggaggccagg 1300
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aatggagcgt agggctgggg accagaccgg aggagtgggg octgaagcag 1450

ctcatcctgc atggagccta caccacccct gaggggggct acgacatggc 1500
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 gttctggac gggcccgccc aggaggcagggc atcagctccc tccagacagt 1650
 gcccgtgacc ctcctggggc ctagggcctg cagccggctg catcagctc 1700
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 cttgccaagg ccccgccagg ccggcggtct tcaccgcgtc ccctgcctat 1900
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 ccagctgctg acaggggacc tggccattct caggacaaga gaatgcagggc 2050
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 ccaggcacca gggcaggccc agaagccag cagctgtggg aaggaacctg 2150
 cctggggcca caggtgccc ctcaccaccc tgcaggacag gggtgtctgt 2200
 ggacactccc acacccaact ctgctaccaa gcaggcggtct cagcttcct 2250
 ctcctttac tcttcagat acaatcacgc cagccacgtt gtttgaaaa 2300
 tttcttttt tggggggcag cagtttctt tttttaaac ttaaataaaat 2350
 tgttacaaaa taaaa 2365

<210> 132
 <211> 571
 <212> PRT
 <213> Homo sapiens

<400> 132

Met	Ile	Leu	Ser	Ser	Leu	Val	Ser	Leu	Ala	Gly	Ser	Val	Tyr	Leu
1					5				10				15	

Ala	Trp	Ile	Leu	Phe	Phe	Val	Leu	Tyr	Asp	Phe	Cys	Ile	Val	Cys
				20				25				30		

Ile	Thr	Thr	Tyr	Ala	Ile	Asn	Val	Ser	Leu	Met	Trp	Leu	Ser	Phe
			35					40				45		

Arg	Lys	Val	Gln	Glu	Pro	Gln	Gly	Lys	Ala	Lys	Arg	His	Gly	Asn
			50					55				60		

Thr	Val	Pro	Gly	Glu	Trp	Pro	Trp	Gln	Ala	Ser	Val	Arg	Arg	Gln
				65				70				75		

Gly Ala His Ile Cys Ser Gly Ser Leu Val Ala Asp Thr Trp Val
 80 85 90

 Leu Thr Ala Ala His Cys Phe Glu Lys Ala Ala Ala Thr Glu Leu
 95 100 105

 Asn Ser Trp Ser Val Val Leu Gly Ser Leu Gln Arg Glu Gly Leu
 110 115 120

 Ser Pro Gly Ala Glu Glu Val Gly Val Ala Ala Leu Gln Leu Pro
 125 130 135

 Arg Ala Tyr Asn His Tyr Ser Gln Gly Ser Asp Leu Ala Leu Leu
 140 145 150

 Gln Leu Ala His Pro Thr Thr His Thr Pro Leu Cys Leu Pro Gln
 155 160 165

 Pro Ala His Arg Phe Pro Phe Gly Ala Ser Cys Trp Ala Thr Gly
 170 175 180

 Trp Asp Gln Asp Thr Ser Asp Ala Pro Gly Thr Leu Arg Asn Leu
 185 190 195

 Arg Leu Arg Leu Ile Ser Arg Pro Thr Cys Asn Cys Ile Tyr Asn
 200 205 210

 Gln Leu His Gln Arg His Leu Ser Asn Pro Ala Arg Pro Gly Met
 215 220 225

 Leu Cys Gly Gly Pro Gln Pro Gly Val Gln Gly Pro Cys Gln Gly
 230 235 240

 Asp Ser Gly Gly Pro Val Leu Cys Leu Glu Pro Asp Gly His Trp
 245 250 255

 Val Gln Ala Gly Ile Ile Ser Phe Ala Ser Ser Cys Ala Gln Glu
 260 265 270

 Asp Ala Pro Val Leu Leu Thr Asn Thr Ala Ala His Ser Ser Trp
 275 280 285

 Leu Gln Ala Arg Val Gln Gly Ala Ala Phe Leu Ala Gln Ser Pro
 290 295 300

 Glu Thr Pro Glu Met Ser Asp Glu Asp Ser Cys Val Ala Cys Gly
 305 310 315

 Ser Leu Arg Thr Ala Gly Pro Gln Ala Gly Ala Pro Ser Pro Trp
 320 325 330

 Pro Trp Glu Ala Arg Leu Met His Gln Gly Gln Leu Ala Cys Gly
 335 340 345

 Gly Ala Leu Val Ser Glu Glu Ala Val Leu Thr Ala Ala His Cys
 350 355 360

 Phe Ile Gly Arg Gln Ala Pro Glu Glu Trp Ser Val Gly Leu Gly

365	370	375
Thr Arg Pro Glu Glu Trp Gly Leu Lys Gln Leu Ile Leu His Gly		
380	385	390
Ala Tyr Thr His Pro Glu Gly Gly Tyr Asp Met Ala Leu Leu Leu		
395	400	405
Leu Ala Gln Pro Val Thr Leu Gly Ala Ser Leu Arg Pro Leu Cys		
410	415	420
Leu Pro Tyr Pro Asp His His Leu Pro Asp Gly Glu Arg Gly Trp		
425	430	435
Val Leu Gly Arg Ala Arg Pro Gly Ala Gly Ile Ser Ser Leu Gln		
440	445	450
Thr Val Pro Val Thr Leu Leu Gly Pro Arg Ala Cys Ser Arg Leu		
455	460	465
His Ala Ala Pro Gly Gly Asp Gly Ser Pro Ile Leu Pro Gly Met		
470	475	480
Val Cys Thr Ser Ala Val Gly Glu Leu Pro Ser Cys Glu Gly Leu		
485	490	495
Ser Gly Ala Pro Leu Val His Glu Val Arg Gly Thr Trp Phe Leu		
500	505	510
Ala Gly Leu His Ser Phe Gly Asp Ala Cys Gln Gly Pro Ala Arg		
515	520	525
Pro Ala Val Phe Thr Ala Leu Pro Ala Tyr Glu Asp Trp Val Ser		
530	535	540
Ser Leu Asp Trp Gln Val Tyr Phe Ala Glu Glu Pro Glu Pro Glu		
545	550	555
Ala Glu Pro Gly Ser Cys Leu Ala Asn Ile Ser Gln Pro Thr Ser		
560	565	570
Cys		

<210> 133
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 133
 cctgtgctgt gcctcgagcc tgac 24

<210> 134
 <211> 24
 <212> DNA

<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide probe
<400> 134
gtgggcagca gttagcacccg cctc 24

<210> 135
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 135
ggctggcatc atcagctttg catcaagctg tgcccaggag gacgc 45

<210> 136
<211> 1998
<212> DNA
<213> Homo sapiens

<400> 136
cgggccgccc ccggccccca ttccggccgg gcctcgctgc ggccggcgact 50
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卷之三

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<210> 137

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> unsure

<222> 233

<223> unknown amino acid

<400> 137

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15

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Val Gln Val Pro Glu Asp Pro Val Val Ala Leu Val Gly Thr Asp
 35 40 45

Ala Thr Leu Cys Cys Ser Phe Ser Pro Glu Pro Gly Phe Ser Leu
 50 55 60

Ala Gln Leu Asn Leu Ile Trp Gln Leu Thr Asp Thr Lys Gln Leu
 65 70 75

Val His Ser Phe Ala Glu Gly Gln Asp Gln Gly Ser Ala Tyr Ala
 80 85 90

Asn Arg Thr Ala Leu Phe Pro Asp Leu Leu Ala Gln Gly Asn Ala
 95 100 105

Ser Leu Arg Leu Gln Arg Val Arg Val Ala Asp Glu Gly Ser Phe
 110 115 120

Thr Cys Phe Val Ser Ile Arg Asp Phe Gly Ser Ala Ala Val Ser
 125 130 135

Leu Gln Val Ala Ala Pro Tyr Ser Lys Pro Ser Met Thr Leu Glu
 140 145 150

Pro Asn Lys Asp Leu Arg Pro Gly Asp Thr Val Thr Ile Thr Cys
 155 160 165

Ser Ser Tyr Gln Gly Tyr Pro Glu Ala Glu Val Phe Trp Gln Asp
 170 175 180

Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr Thr Ser Gln Met
 185 190 195

Ala Asn Glu Gln Gly Leu Phe Asp Val His Ser Val Leu Arg Val
 200 205 210

Val Leu Gly Ala Asn Gly Thr Tyr Ser Cys Leu Val Arg Asn Pro
 215 220 225

Val Leu Gln Gln Asp Ala His Xaa Ser Val Thr Ile Thr Gly Gln
 230 235 240

Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu
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Ser Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys
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Trp Arg Lys Ile Lys Gln Ser Cys Glu Glu Glu Asn Ala Gly Ala
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Pro Leu Lys His Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile
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Ala

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 138

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<210> 139

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 139

gctgtctgtc tgtctcattg 20

<210> 140

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 140

ggacacagta tactgaccac 20

<210> 141

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 141

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<210> 142

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 142
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<210> 143
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 143
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<210> 144
<211> 2336
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1620, 1673
<223> unknown base

<400> 144
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gcagctacta ttgaataaat acctatcctg gatttt 2336

<210> 145

<211> 211

<212> PRT

<213> Homo sapiens

<400> 145

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Val Leu Gln Lys Pro Phe Ile Cys His Arg Lys Thr Lys Gly Gly
35 40 45

Asp Leu Met Leu Val His Tyr Glu Gly Tyr Leu Glu Lys Asp Gly
50 55 60

Ser Leu Phe His Ser Thr His Lys His Asn Asn Gly Gln Pro Ile
65 70 75

Trp Phe Thr Leu Gly Ile Leu Glu Ala Leu Lys Gly Trp Asp Gln
80 85 90

Gly Leu Lys Gly Met Cys Val Gly Glu Lys Arg Lys Leu Ile Ile
95 100 105

Pro Pro Ala Leu Gly Tyr Gly Lys Glu Gly Lys Gly Lys Ile Pro
110 115 120

Pro Glu Ser Thr Leu Ile Phe Asn Ile Asp Leu Leu Glu Ile Arg
125 130 135

Asn Gly Pro Arg Ser His Glu Ser Phe Gln Glu Met Asp Leu Asn
140 145 150

Asp Asp Trp Lys Leu Ser Lys Asp Glu Val Lys Ala Tyr Leu Lys
155 160 165

Lys Glu Phe Glu Lys His Gly Ala Val Val Asn Glu Ser His His
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Asp Ala Leu Val Glu Asp Ile Phe Asp Lys Glu Asp Glu Asp Lys
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Asp Gly Phe Ile Ser Ala Arg Glu Phe Thr Tyr Lys His Asp Glu
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<210> 146

<211> 26

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 146
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<210> 147
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 147
gcccgagca ggaggaatga tgagc 25

<210> 148
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 148
gtggAACGCG gtcttgactc tgttcgac ttcttgatt ggggctttg 49

<210> 149
<211> 2196
<212> DNA
<213> Homo sapiens

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cagagatgcc tggctaccc tcctggcctt cagcctcacg gggctcagtc 200
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<210> 150
<211> 215
<212> PRT
<213> Homo sapiens

<400> 150
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Glu Val Thr Val Pro Ala Thr Leu Asn Val Leu Asn Gly Ser Asp
35 40 45
Ala Arg Leu Pro Cys Thr Phe Asn Ser Cys Tyr Thr Val Asn His
50 55 60
Lys Gln Phe Ser Leu Asn Trp Thr Tyr Gln Glu Cys Asn Asn Cys
65 70 75
Ser Glu Glu Met Phe Leu Gln Phe Arg Met Lys Ile Ile Asn Leu
80 85 90
Lys Leu Glu Arg Phe Gln Asp Arg Val Glu Phe Ser Gly Asn Pro
95 100 105
Ser Lys Tyr Asp Val Ser Val Met Leu Arg Asn Val Gln Pro Glu
110 115 120
Asp Glu Gly Ile Tyr Asn Cys Tyr Ile Met Asn Pro Pro Asp Arg
125 130 135
His Arg Gly His Gly Lys Ile His Leu Gln Val Leu Met Glu Glu
140 145 150
Pro Pro Glu Arg Asp Ser Thr Val Ala Val Ile Val Gly Ala Ser
155 160 165
Val Gly Gly Phe Leu Ala Val Val Ile Leu Val Leu Met Val Val
170 175 180
Lys Cys Val Arg Arg Lys Lys Glu Gln Lys Leu Ser Thr Asp Asp
185 190 195
Leu Lys Thr Glu Glu Glu Gly Lys Thr Asp Gly Glu Gly Asn Pro
200 205 210
Asp Asp Gly Ala Lys
215

<210> 151

<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 103, 233
<223> unknown base

<400> 151
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gccctgcctt cagcctcacf gggctcagtc tcttttctc tttggtgcca 200
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gatgtgtcgg tgatgctgag aaacgtgcag ccggaggatg aggggattta 500
caactgctac atcatgaacc cccc 524

<210> 152
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 56, 123
<223> unknown base

<400> 152
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ccctgaactg gatTTaccag gagtgcaaca actggctctg aggagatgtt 200
cctccagttc ccgcattggaa gatcattaa cctgaaagct ggaagcggtt 250
ttcaagaacc gcgtgaaagt ttctcaggaa accccagcaa gtacgtatgt 300
tcgggtgatgc tgagaaacgt gcagccggag gatgagggga tttacaactg 350
ctacatcatg aacccccc 368

<210> 153
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 153
acggagcatg gaggtccaca gtac 24

<210> 154
<211> 23
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 154
gcacgtttct cagcatcacc gac 23

<210> 155
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 155
cgccctgccct gcaccttcaa ctcctgctac acagtgaacc acaaacagtt 50

<210> 156
<211> 2680
<212> DNA
<213> Homo sapiens

<400> 156
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cgccggaccca gcgcgtcccg ccggacgtca cccccccagtg gtgctggtcc 150
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atgctgtaaa aaaaaaaaaa aaaaaaaaaa 2680

<210> 157

<211> 412

<212> PRT

<213> Artificial

<400> 157

Met	Gly	Leu	His	Leu	Arg	Pro	Tyr	Arg	Val	Gly	Leu	Leu	Pro	Asp
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Gly	Leu	Leu	Phe	Leu	Leu	Leu	Leu	Leu	Met	Leu	Leu	Ala	Asp	Pro
				20					25				30	

Ala	Leu	Pro	Ala	Gly	Arg	His	Pro	Pro	Val	Val	Leu	Val	Pro	Gly
				35					40				45	

Asp	Leu	Gly	Asn	Gln	Leu	Glu	Ala	Lys	Leu	Asp	Lys	Pro	Thr	Val
				50					55				60	

Val	His	Tyr	Leu	Cys	Ser	Lys	Lys	Thr	Glu	Ser	Tyr	Phe	Thr	Ile
				65					70				75	

Trp	Leu	Asn	Leu	Glu	Leu	Leu	Leu	Pro	Val	Ile	Ile	Asp	Cys	Trp
				80					85				90	

Ile	Asp	Asn	Ile	Arg	Leu	Val	Tyr	Asn	Lys	Thr	Ser	Arg	Ala	Thr
				95					100				105	

Gln Phe Pro Asp Gly Val Asp Val Arg Val Pro Gly Phe Gly Lys

110	115	120
Thr Phe Ser Leu Glu Phe Leu Asp Pro Ser Lys Ser Ser Val Gly		
125	130	135
Ser Tyr Phe His Thr Met Val Glu Ser Leu Val Gly Trp Gly Tyr		
140	145	150
Thr Arg Gly Glu Asp Val Arg Gly Ala Pro Tyr Asp Trp Arg Arg		
155	160	165
Ala Pro Asn Glu Asn Gly Pro Tyr Phe Leu Ala Leu Arg Glu Met		
170	175	180
Ile Glu Glu Met Tyr Gln Leu Tyr Gly Gly Pro Val Val Leu Val		
185	190	195
Ala His Ser Met Gly Asn Met Tyr Thr Leu Tyr Phe Leu Gln Arg		
200	205	210
Gln Pro Gln Ala Trp Lys Asp Lys Tyr Ile Arg Ala Phe Val Ser		
215	220	225
Leu Gly Ala Pro Trp Gly Gly Val Ala Lys Thr Leu Arg Val Leu		
230	235	240
Ala Ser Gly Asp Asn Asn Arg Ile Pro Val Ile Gly Pro Leu Lys		
245	250	255
Ile Arg Glu Gln Gln Arg Ser Ala Val Ser Thr Ser Trp Leu Leu		
260	265	270
Pro Tyr Asn Tyr Thr Trp Ser Pro Glu Lys Val Phe Val Gln Thr		
275	280	285
Pro Thr Ile Asn Tyr Thr Leu Arg Asp Tyr Arg Lys Phe Phe Gln		
290	295	300
Asp Ile Gly Phe Glu Asp Gly Trp Leu Met Arg Gln Asp Thr Glu		
305	310	315
Gly Leu Val Glu Ala Thr Met Pro Pro Gly Val Gln Leu His Cys		
320	325	330
Leu Tyr Gly Thr Gly Val Pro Thr Pro Asp Ser Phe Tyr Tyr Glu		
335	340	345
Ser Phe Pro Asp Arg Asp Pro Lys Ile Cys Phe Gly Asp Gly Asp		
350	355	360
Gly Thr Val Asn Leu Lys Ser Ala Leu Gln Cys Gln Ala Trp Gln		
365	370	375
Ser Arg Gln Glu His Gln Val Leu Leu Gln Glu Leu Pro Gly Ser		
380	385	390
Glu His Ile Glu Met Leu Ala Asn Ala Thr Thr Leu Ala Tyr Leu		
395	400	405

Lys Arg Val Leu Leu Gly Pro
410

<210> 158
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 158
ctggggctac acacggggtg agg 23

<210> 159
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 159
ggtgccgctg cagaaagttag agcg 24

<210> 160
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 160

gcccccaaatg aaaacgggcc ctacttcctg gccctccgcg agatg 45

<210> 161
<211> 1512
<212> DNA
<213> Homo sapiens

<400> 161
cggacgcgtg ggcggacgcg tggggcggcg gcagcggcgg cgacggcgac 50
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gcggcgcttc ctgacgcagc cgcagggtgtt ggcgcgcgcc gtgtgcttgg 150
tcttcgcctt gatcggtttc tcctgcattt atggtgagggtt ctacagcaat 200
gccccacgagt ctaaggcagat gtactgcgtt ttcaaccgca acgaggatgc 250
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cgcaagtacc tggtcattgg tgacctgctc ttctcagctc tctggacctt 400

cctgtggttt gttggttct gcttcctcac caaccagtgg gcagtcacca 450
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ccactccgga ccccaacact gcctacgcct cctaccagg tgcatctgtg 650
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ctaccagccg cccccctgtgt actgagtggc ggtagcgtg ggaaggggaa 750
cagaggggc cctcccctct gccctggact ttcccatag cctccctggaa 800
ctgccagccc ctctcttca cctgttccat cctgtgcagc tgacacacag 850
ctaaggagcc tcatacgctg gcggggctg gcagagccac accccaagtg 900
cctgtgccc gagggcttca gtcagccgct cactcctcca gggactttt 950
aggaaagggt ttttagctag tgttttcct cgctttaat gacctcagcc 1000
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gcctcagctt ccccccgcc cgggtcaggc cgtgggagcc gctattatct 1100
gcgttctctg ccaaagactc gtgggggcca tcacacctgc cctgtgcagc 1150
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tctcattcaa ag 1512

<210> 162

<211> 224

<212> PRT

<213> Homo sapiens

<400> 162

Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe
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Asp	Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala
														30

Val Cys Leu Val Phe Ala Leu Ile Val Phe Ser Cys Ile Tyr Gly
35 40 45

Glu Gly Tyr Ser Asn Ala His Glu Ser Lys Gln Met Tyr Cys Val
50 55 60

Phe Asn Arg Asn Glu Asp Ala Cys Arg Tyr Gly Ser Ala Ile Gly
65 70 75

Val Leu Ala Phe Leu Ala Ser Ala Phe Phe Leu Val Val Asp Ala
80 85 90

Tyr Phe Pro Gln Ile Ser Asn Ala Thr Asp Arg Lys Tyr Leu Val
95 100 105

Ile Gly Asp Leu Leu Phe Ser Ala Leu Trp Thr Phe Leu Trp Phe
110 115 120

Val Gly Phe Cys Phe Leu Thr Asn Gln Trp Ala Val Thr Asn Pro
125 130 135

Lys Asp Val Leu Val Gly Ala Asp Ser Val Arg Ala Ala Ile Thr
140 145 150

Phe Ser Phe Phe Ser Ile Phe Ser Trp Gly Val Leu Ala Ser Leu
155 160 165

Ala Tyr Gln Arg Tyr Lys Ala Gly Val Asp Asp Phe Ile Gln Asn
170 175 180

Tyr Val Asp Pro Thr Pro Asp Pro Asn Thr Ala Tyr Ala Ser Tyr
185 190 195

Pro Gly Ala Ser Val Asp Asn Tyr Gln Gln Pro Pro Phe Thr Gln
200 205 210

Asn Ala Glu Thr Thr Glu Gly Tyr Gln Pro Pro Pro Val Tyr
215 220

<210> 163

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 163

tggcttcgc cttgatcggt ttct 24

<210> 164

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 164
gtgtactgag cggcggttag 20

<210> 165
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 165
ctgaaggta tggctgcctt cac 23

<210> 166
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 166
ccagggaggct catggaaag tcc 23

<210> 167
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 167
ccacgagtct aagcagatgt actgcgttt caaccgcaac gaggatgcct 50

<210> 168
<211> 3143
<212> DNA
<213> Homo sapiens

<400> 168
gagccaccta ccctgctccg aggccaggcc tgcagggct catggccag 50
agggtgatca gtgagcagaa ggatgcccgt ggccgaggcc ccccagggtgg 100
ctggcgggca gggggacgga ggtgatggcg aggaagcgga gccagaggggg 150
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tttggataaa agctgcctga tcaaaaaaaaaaaaaaaa aaa 3143

<210> 169
<211> 802
<212> PRT
<213> Homo sapiens

<400> 169

Met Pro Val Ala Glu Ala Pro Gln Val Ala Gly Gly Gln Gly Asp
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Gly Gly Asp Gly Glu Glu Ala Glu Pro Glu Gly Met Phe Lys Ala
 20 25 30

Cys Glu Asp Ser Lys Arg Lys Ala Arg Gly Tyr Leu Arg Leu Val
 35 40 45

Pro Leu Phe Val Leu Leu Ala Leu Leu Val Leu Ala Ser Ala Gly
 50 55 60

Val Leu Leu Trp Tyr Phe Leu Gly Tyr Lys Ala Glu Val Met Val
 65 70 75

Ser Gln Val Tyr Ser Gly Ser Leu Arg Val Leu Asn Arg His Phe
 80 85 90

Ser Gln Asp Leu Thr Arg Arg Glu Ser Ser Ala Phe Arg Ser Glu
 95 100 105

Thr Ala Lys Ala Gln Lys Met Leu Lys Glu Leu Ile Thr Ser Thr
 110 115 120

Arg Leu Gly Thr Tyr Tyr Asn Ser Ser Ser Val Tyr Ser Phe Gly
 125 130 135

Glu Gly Pro Leu Thr Cys Phe Phe Trp Phe Ile Leu Gln Ile Pro
 140 145 150

Glu His Arg Arg Leu Met Leu Ser Pro Glu Val Val Gln Ala Leu
 155 160 165

Leu Val Glu Glu Leu Leu Ser Thr Val Asn Ser Ser Ala Ala Val
 170 175 180

Pro Tyr Arg Ala Glu Tyr Glu Val Asp Pro Glu Gly Leu Val Ile
 185 190 195

Leu Glu Ala Ser Val Lys Asp Ile Ala Ala Leu Asn Ser Thr Leu
 200 205 210

Gly Cys Tyr Arg Tyr Ser Tyr Val Gly Gln Gly Gln Val Leu Arg
 215 220 225

Leu Lys Gly Pro Asp His Leu Ala Ser Ser Cys Leu Trp His Leu
 230 235 240

Gln Gly Pro Lys Asp Leu Met Leu Lys Leu Arg Leu Glu Trp Thr
 245 250 255

Leu Ala Glu Cys Arg Asp Arg Leu Ala Met Tyr Asp Val Ala Gly
 260 265 270

Pro Leu Glu Lys Arg Leu Ile Thr Ser Val Tyr Gly Cys Ser Arg
 275 280 285

Gln Glu Pro Val Val Glu Val Leu Ala Ser Gly Ala Ile Met Ala

290	295	300
Val Val Trp Lys Lys Gly Leu His Ser Tyr Tyr Asp Pro Phe Val		
305	310	315
Leu Ser Val Gln Pro Val Val Phe Gln Ala Cys Glu Val Asn Leu		
320	325	330
Thr Leu Asp Asn Arg Leu Asp Ser Gln Gly Val Leu Ser Thr Pro		
335	340	345
Tyr Phe Pro Ser Tyr Tyr Ser Pro Gln Thr His Cys Ser Trp His		
350	355	360
Leu Thr Val Pro Ser Leu Asp Tyr Gly Leu Ala Leu Trp Phe Asp		
365	370	375
Ala Tyr Ala Leu Arg Arg Gln Lys Tyr Asp Leu Pro Cys Thr Gln		
380	385	390
Gly Gln Trp Thr Ile Gln Asn Arg Arg Leu Cys Gly Leu Arg Ile		
395	400	405
Leu Gln Pro Tyr Ala Glu Arg Ile Pro Val Val Ala Thr Ala Gly		
410	415	420
Ile Thr Ile Asn Phe Thr Ser Gln Ile Ser Leu Thr Gly Pro Gly		
425	430	435
Val Arg Val His Tyr Gly Leu Tyr Asn Gln Ser Asp Pro Cys Pro		
440	445	450
Gly Glu Phe Leu Cys Ser Val Asn Gly Leu Cys Val Pro Ala Cys		
455	460	465
Asp Gly Val Lys Asp Cys Pro Asn Gly Leu Asp Glu Arg Asn Cys		
470	475	480
Val Cys Arg Ala Thr Phe Gln Cys Lys Glu Asp Ser Thr Cys Ile		
485	490	495
Ser Leu Pro Lys Val Cys Asp Gly Gln Pro Asp Cys Leu Asn Gly		
500	505	510
Ser Asp Glu Glu Gln Cys Gln Glu Gly Val Pro Cys Gly Thr Phe		
515	520	525
Thr Phe Gln Cys Glu Asp Arg Ser Cys Val Lys Lys Pro Asn Pro		
530	535	540
Gln Cys Asp Gly Arg Pro Asp Cys Arg Asp Gly Ser Asp Glu Glu		
545	550	555
His Cys Asp Cys Gly Leu Gln Gly Pro Ser Ser Arg Ile Val Gly		
560	565	570
Gly Ala Val Ser Ser Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu		
575	580	585

Gln Val Arg Gly Arg His Ile Cys Gly Gly Ala Leu Ile Ala Asp
590 595 600

Arg Trp Val Ile Thr Ala Ala His Cys Phe Gln Glu Asp Ser Met
605 610 615

Ala Ser Thr Val Leu Trp Thr Val Phe Leu Gly Lys Val Trp Gln
620 625 630

Asn Ser Arg Trp Pro Gly Glu Val Ser Phe Lys Val Ser Arg Leu
635 640 645

Leu Leu His Pro Tyr His Glu Glu Asp Ser His Asp Tyr Asp Val
650 655 660

Ala Leu Leu Gln Leu Asp His Pro Val Val Arg Ser Ala Ala Val
665 670 675

Arg Pro Val Cys Leu Pro Ala Arg Ser His Phe Phe Glu Pro Gly
680 685 690

Leu His Cys Trp Ile Thr Gly Trp Gly Ala Leu Arg Glu Gly Gly
695 700 705

Pro Ile Ser Asn Ala Leu Gln Lys Val Asp Val Gln Leu Ile Pro
710 715 720

Gln Asp Leu Cys Ser Glu Ala Tyr Arg Tyr Gln Val Thr Pro Arg
725 730 735

Met Leu Cys Ala Gly Tyr Arg Lys Gly Lys Lys Asp Ala Cys Gln
740 745 750

Gly Asp Ser Gly Gly Pro Leu Val Cys Lys Ala Leu Ser Gly Arg
755 760 765

Trp Phe Leu Ala Gly Leu Val Ser Trp Gly Leu Gly Cys Gly Arg
770 775 780

Pro Asn Tyr Phe Gly Val Tyr Thr Arg Ile Thr Gly Val Ile Ser
785 790 795

Trp Ile Gln Gln Val Val Thr
800

<210> 170
<211> 1327
<212> DNA
<213> Homo sapiens

<400> 170
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caccatcaac ttcacctccc agatctccct caccgggccc ggtgtgcggg 150
tgcactatgg ctgttacaac cagtccggacc cttgtccctgg agatccctc 200

tgttctgtga atggactctg tgtccctgcc tgtgatgggg tcaaggactg 250
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gcaaagagga cagcacatgc atctcaactgc ccaaggctcg tcatggcag 350
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agctgtgtcc tccgagggtg agtggccatg gcaggccagc ctccaggttc 600
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cccgccatcac aggtgtgatc agctggatcc agcaagtgg gacctgagga 1250
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gcaactgcca agcaggggaa caagtat 1327

<210> 171

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 171

taacagctgc ccactgcttc cagg 24

<210> 172

<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 172
taatccagca gtgcaggccg gg 22

<210> 173
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 173
atggcctcca cggtgctgtg gaccgtgttc ctgggcaagg tgtggcagaa 50

<210> 174
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 174
tgcctatgca ctgaggaggc agaag 25

<210> 175
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 175
aggcagggac acagagtcca ttcac 25

<210> 176
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 176
agtatgattt gccgtgcacc cagggccagt ggacgatcca gaacaggagg 50

<210> 177
<211> 1510
<212> DNA
<213> Homo sapiens

<400> 177
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ccaccgccccg ggctccgtgc cgccaagttt tcattttcca ccttctctgc 100
ctccagtcggccagccctg gccgagagaa gggtcttacc ggccgggatt 150
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aaaaaaaaaa 1510

<210> 178

<211> 354

<212> PRT

<213> Homo sapiens

<400> 178

Met Ser Asn Ser Val Pro Leu Leu Cys Phe Trp Ser Leu Cys Tyr
1 5 10 15

Cys Phe Ala Ala Gly Ser Pro Val Pro Phe Gly Pro Glu Gly Arg
20 25 30

Leu Glu Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val
35 40 45

Lys Pro Ser Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu
50 55 60

His Glu Gly Cys Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu
65 70 75

Asp Cys Ser Phe Asn Met Thr Ala Lys Thr Phe Phe Ile Ile His
80 85 90

Gly Trp Thr Met Ser Gly Ile Phe Glu Asn Trp Leu His Lys Leu
95 100 105

Val Ser Ala Leu His Thr Arg Glu Lys Asp Ala Asn Val Val Val
110 115 120

Val Asp Trp Leu Pro Leu Ala His Gln Leu Tyr Thr Asp Ala Val
125 130 135

Asn Asn Thr Arg Val Val Gly His Ser Ile Ala Arg Met Leu Asp
140 145 150

Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu Gly Asn Val His Leu
155 160 165

Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly Tyr Ala Gly Asn
170 175 180

Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu Asp Pro Ala
185 190 195

Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu Ser Pro
200 205 210

Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg Ser
215 220 225

Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
230 235 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn
245 250 255

Asp Val Leu Gly Ser Ile Ala Tyr Gly Thr Ile Thr Glu Val Val
260 265 270

Lys Cys Glu His Glu Arg Ala Val His Leu Phe Val Asp Ser Leu
275 280 285

Val Asn Gln Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser
290 295 300

Asn Arg Phe Lys Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg
305 310 315

Cys Asn Ser Ile Gly Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg
320 325 330

Asn Ser Lys Met Tyr Leu Lys Thr Arg Ala Gly Met Pro Phe Arg
335 340 345

Gly Asn Leu Gln Ser Leu Glu Cys Pro
350

<210> 179
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 179
gtgagcatga gcgagccgtc cac 23

<210> 180
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 180
gctattacaa cggttcttgc ggcagc 26

<210> 181
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 181
ttgactctct ggtgaatcag gacaagccga gttttgcctt ccag 44

<210> 182

<211> 3240
<212> DNA
<213> Homo sapiens

<400> 182
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tcagtaagtt gaggtcaaaa ataaaggaat catacatctc 3240

<210> 183

<211> 713

<212> PRT

<213> Homo sapiens

<400> 183

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Ala	His	Pro	Asp	Arg	Ile	Ile	Phe	Pro	Asn	His	Ala	Cys	Glu	Asp
					20				25				30	
Pro	Pro	Ala	Val	Leu	Leu	Glu	Val	Gln	Gly	Thr	Leu	Gln	Arg	Pro
					35				40				45	
Leu	Val	Arg	Asp	Ser	Arg	Thr	Ser	Pro	Ala	Asn	Cys	Thr	Trp	Leu
					50				55				60	
Ile	Leu	Gly	Ser	Lys	Glu	Gln	Thr	Val	Thr	Ile	Arg	Phe	Gln	Lys
					65				70				75	
Leu	His	Leu	Ala	Cys	Gly	Ser	Glu	Arg	Leu	Thr	Leu	Arg	Ser	Pro
					80				85				90	
Leu	Gln	Pro	Leu	Ile	Ser	Leu	Cys	Glu	Ala	Pro	Pro	Ser	Pro	Leu
					95				100				105	
Gln	Leu	Pro	Gly	Gly	Asn	Val	Thr	Ile	Thr	Tyr	Ser	Tyr	Ala	Gly
					110				115				120	
Ala	Arg	Ala	Pro	Met	Gly	Gln	Gly	Phe	Leu	Leu	Ser	Tyr	Ser	Gln
					125				130				135	
Asp	Trp	Leu	Met	Cys	Leu	Gln	Glu	Glu	Phe	Gln	Cys	Leu	Asn	His
					140				145				150	
Arg	Cys	Val	Ser	Ala	Val	Gln	Arg	Cys	Asp	Gly	Val	Asp	Ala	Cys
					155				160				165	
Gly	Asp	Gly	Ser	Asp	Glu	Ala	Gly	Cys	Ser	Ser	Asp	Pro	Phe	Pro

170 175 180

Gly Leu Thr Pro Arg Pro Val Pro Ser Leu Pro Cys Asn Val Thr
185 190 195

Leu Glu Asp Phe Tyr Gly Val Phe Ser Ser Pro Gly Tyr Thr His
200 205 210

Leu Ala Ser Val Ser His Pro Gln Ser Cys His Trp Leu Leu Asp
215 220 225

Pro His Asp Gly Arg Arg Leu Ala Val Arg Phe Thr Ala Leu Asp
230 235 240

Leu Gly Phe Gly Asp Ala Val His Val Tyr Asp Gly Pro Gly Pro
245 250 255

Pro Glu Ser Ser Arg Leu Leu Arg Ser Leu Thr His Phe Ser Asn
260 265 270

Gly Lys Ala Val Thr Val Glu Thr Leu Ser Gly Gln Ala Val Val
275 280 285

Ser Tyr His Thr Val Ala Trp Ser Asn Gly Arg Gly Phe Asn Ala
290 295 300

Thr Tyr His Val Arg Gly Tyr Cys Leu Pro Trp Asp Arg Pro Cys
305 310 315

Gly Leu Gly Ser Gly Leu Gly Ala Gly Glu Gly Leu Gly Glu Arg
320 325 330

Cys Tyr Ser Glu Ala Gln Arg Cys Asp Gly Ser Trp Asp Cys Ala
335 340 345

Asp Gly Thr Asp Glu Glu Asp Cys Pro Gly Cys Pro Pro Gly His
350 355 360

Phe Pro Cys Gly Ala Ala Gly Thr Ser Gly Ala Thr Ala Cys Tyr
365 370 375

Leu Pro Ala Asp Arg Cys Asn Tyr Gln Thr Phe Cys Ala Asp Gly
380 385 390

Ala Asp Glu Arg Arg Cys Arg His Cys Gln Pro Gly Asn Phe Arg
395 400 405

Cys Arg Asp Glu Lys Cys Val Tyr Glu Thr Trp Val Cys Asp Gly
410 415 420

Gln Pro Asp Cys Ala Asp Gly Ser Asp Glu Trp Asp Cys Ser Tyr
425 430 435

Val Leu Pro Arg Lys Val Ile Thr Ala Ala Val Ile Gly Ser Leu
440 445 450

Val Cys Gly Leu Leu Leu Val Ile Ala Leu Gly Cys Thr Cys Lys
455 460 465

Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu
470 475 480

Ser Arg Met Glu Ala Glu Ile Val Gln Gln Gln Ala Pro Pro Ser
485 490 495

Tyr Gly Gln Leu Ile Ala Gln Gly Ala Ile Pro Pro Val Glu Asp
500 505 510

Phe Pro Thr Glu Asn Pro Asn Asp Asn Ser Val Leu Gly Asn Leu
515 520 525

Arg Ser Leu Leu Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly
530 535 540

Gly Pro Gly Ala Arg Arg Arg Gln Arg Gly Arg Leu Met Arg Arg
545 550 555

Leu Val Arg Arg Leu Arg Arg Trp Gly Leu Leu Pro Arg Thr Asn
560 565 570

Thr Pro Ala Arg Ala Ser Glu Ala Arg Ser Gln Val Thr Pro Ser
575 580 585

Ala Ala Pro Leu Glu Ala Leu Asp Gly Gly Thr Gly Pro Ala Arg
590 595 600

Glu Gly Gly Ala Val Gly Gly Gln Asp Gly Glu Gln Ala Pro Pro
605 610 615

Leu Pro Ile Lys Ala Pro Leu Pro Ser Ala Ser Thr Ser Pro Ala
620 625 630

Pro Thr Thr Val Pro Glu Ala Pro Gly Pro Leu Pro Ser Leu Pro
635 640 645

Leu Glu Pro Ser Leu Leu Ser Gly Val Val Gln Ala Leu Arg Gly
650 655 660

Arg Leu Leu Pro Ser Leu Gly Pro Pro Gly Pro Thr Arg Ser Pro
665 670 675

Pro Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu Asp Asp
680 685 690

Val Leu Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala Glu
695 700 705

Ala Glu Asp Glu Pro Leu Leu Thr
710

<210> 184

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 184
ggctgtcact gtggagacac 20

<210> 185
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 185
gcaaggcat tacagctg 18

<210> 186
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 186
agaacatagg agcagtccca ctc 23

<210> 187
<211> 23
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 187
tgcctgctgc tgcacaatct cag 23

<210> 188
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 188
ggctattgct tgccttggga cagaccctgt ggcttaggct ctggc 45

<210> 189
<211> 663
<212> DNA
<213> Homo sapiens

<400> 189
cgagctgggc gagaagtagg ggagggcggt gctccgccgc ggtggcggtt 50
gctatcgctt cgcagaacct actcaggcag ccagctgaga agagttgagg 100
gaaagtgctg ctgctgggtc tgcagacgca atggataacg tgcagccgaa 150

aataaaaacat cgccccttct gcttcagtgt gaaaggccac gtgaagatgc 200
tgccgctggc actaactgtg acatctatga ccttttttat catcgaccaa 250
gccctgaac catatattgt tatcaactgga tttgaagtca ccgttatctt 300
attttcata cttttatatg tactcagact tgatcgatta atgaagtgg 350
tattttggcc tttgcttgat attatcaact cactggtaac aacagtattc 400
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agttggtgga ggggtgtttg cacttgcac agcagtatgc tgtcttgcgg 500
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cagaaaaagc ctgtgcatga aaaaaaaagaa gttttgtaat tttatattac 600
tttttagttt gatactaagt attaaacata tttctgtatt cttccaaaaa 650
aaaaaaaaaaa aaa 663

<210> 190

<211> 152

<212> PRT

<213> Homo sapiens

<400> 190

Met	Asp	Asn	Val	Gln	Pro	Lys	Ile	Lys	His	Arg	Pro	Phe	Cys	Phe
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Ser	Val	Lys	Gly	His	Val	Lys	Met	Leu	Arg	Leu	Ala	Leu	Thr	Val
					20			25					30	

Thr	Ser	Met	Thr	Phe	Phe	Ile	Ile	Ala	Gln	Ala	Pro	Glu	Pro	Tyr
				35				40					45	

Ile	Val	Ile	Thr	Gly	Phe	Glu	Val	Thr	Val	Ile	Leu	Phe	Phe	Ile
				50				55					60	

Leu	Leu	Tyr	Val	Leu	Arg	Leu	Asp	Arg	Leu	Met	Lys	Trp	Leu	Phe
				65				70					75	

Trp	Pro	Leu	Leu	Asp	Ile	Ile	Asn	Ser	Leu	Val	Thr	Thr	Val	Phe
				80				85					90	

Met	Leu	Ile	Val	Ser	Val	Leu	Ala	Leu	Ile	Pro	Glu	Thr	Thr	Thr
				95				100					105	

Leu	Thr	Val	Gly	Gly	Gly	Val	Phe	Ala	Leu	Val	Thr	Ala	Val	Cys
					110				115					120

Cys	Leu	Ala	Asp	Gly	Ala	Leu	Ile	Tyr	Arg	Lys	Leu	Leu	Phe	Asn
				125				130					135	

Pro	Ser	Gly	Pro	Tyr	Gln	Lys	Lys	Pro	Val	His	Glu	Lys	Lys	Glu
				140				145					150	

Val Leu

<210> 191
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 78, 212, 234, 487
<223> unknown base

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catcgccct tctgcttcag tgtgaaaggc cacgtgaaga tgctgcggct 200
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aaccatatat ttttatcact ggatttgaag tcaccgttat cttattttc 300
atactttat atgtactcag acttgatcga ttaatgaagt gtttattttg 350
gccttgctt gatattatca actcactgg: aacaacagta ttcatgctca 400
tcgtatctgt gttggcactg ataccagaaa ccacaacatt gacagttgg 450
ggaggggtgt ttgcacttgt gacagcagta tgctgtnttg ccgac 495

<210> 192
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 192
cgtttgcag aacctactca ggcag 25

<210> 193
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 193
cctccaccaa ctgtcaatgt tgtgg 25

<210> 194
<211> 40

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 194
aaagtgcgtc tgctgggtct gcagacgcga tggataacgt 40

<210> 195
<211> 1879
<212> DNA
<213> Homo sapien

<400> 195
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 aaataattaa aaaaaaaaaact tcattctaa 1879

<210> 196

<211> 518

<212> PRT

<213> Homo sapien

<400> 196

Met	Gly	Ala	Leu	Ala	Arg	Ala	Leu	Leu	Leu	Pro	Leu	Leu	Ala	Gln
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Trp	Leu	Leu	Arg	Ala	Ala	Pro	Glu	Leu	Ala	Pro	Ala	Pro	Phe	Thr
														30
20														

Leu	Pro	Leu	Arg	Val	Ala	Ala	Ala	Thr	Asn	Arg	Val	Val	Ala	Pro
														45
35														

Thr	Pro	Gly	Pro	Gly	Thr	Pro	Ala	Glu	Arg	His	Ala	Asp	Gly	Leu
														60
50														

Ala	Leu	Ala	Leu	Glu	Pro	Ala	Leu	Ala	Ser	Pro	Ala	Gly	Ala	Ala
														75
65														

Asn	Phe	Leu	Ala	Met	Val	Asp	Asn	Leu	Gln	Gly	Asp	Ser	Gly	Arg
														90
80														

Gly	Tyr	Tyr	Leu	Glu	Met	Leu	Ile	Gly	Thr	Pro	Pro	Gln	Lys	Leu
														105
95														

Gln Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala Val Ala Gly
110 115 120

Thr Pro His Ser Tyr Ile Asp Thr Tyr Phe Asp Thr Glu Arg Ser
125 130 135

Ser Thr Tyr Arg Ser Lys Gly Phe Asp Val Thr Val Lys Tyr Thr
140 145 150

Gln Gly Ser Trp Thr Gly Phe Val Gly Glu Asp Leu Val Thr Ile
155 160 165

Pro Lys Gly Phe Asn Thr Ser Phe Leu Val Asn Ile Ala Thr Ile
170 175 180

Phe Glu Ser Glu Asn Phe Phe Leu Pro Gly Ile Lys Trp Asn Gly
185 190 195

Ile Leu Gly Leu Ala Tyr Ala Thr Leu Ala Lys Pro Ser Ser Ser
200 205 210

Leu Glu Thr Phe Phe Asp Ser Leu Val Thr Gln Ala Asn Ile Pro
215 220 225

Asn Val Phe Ser Met Gln Met Cys Gly Ala Gly Leu Pro Val Ala
230 235 240

Gly Ser Gly Thr Asn Gly Gly Ser Leu Val Leu Gly Gly Ile Glu
245 250 255

Pro Ser Leu Tyr Lys Gly Asp Ile Trp Tyr Thr Pro Ile Lys Glu
260 265 270

Glu Trp Tyr Tyr Gln Ile Glu Ile Leu Lys Leu Glu Ile Gly Gly
275 280 285

Gln Ser Leu Asn Leu Asp Cys Arg Glu Tyr Asn Ala Asp Lys Ala
290 295 300

Ile Val Asp Ser Gly Thr Thr Leu Leu Arg Leu Pro Gln Lys Val
305 310 315

Phe Asp Ala Val Val Glu Ala Val Ala Arg Ala Ser Leu Ile Pro
320 325 330

Glu Phe Ser Asp Gly Phe Trp Thr Gly Ser Gln Leu Ala Cys Trp
335 340 345

Thr Asn Ser Glu Thr Pro Trp Ser Tyr Phe Pro Lys Ile Ser Ile
350 355 360

Tyr Leu Arg Asp Glu Asn Ser Ser Arg Ser Phe Arg Ile Thr Ile
365 370 375

Leu Pro Gln Leu Tyr Ile Gln Pro Met Met Gly Ala Gly Leu Asn
380 385 390

Tyr Glu Cys Tyr Arg Phe Gly Ile Ser Pro Ser Thr Asn Ala Leu

395 400 405
Val Ile Gly Ala Thr Val Met Glu Gly Phe Tyr Val Ile Phe Asp
410 415 420
Arg Ala Gln Lys Arg Val Gly Phe Ala Ala Ser Pro Cys Ala Glu
425 430 435
Ile Ala Gly Ala Ala Val Ser Glu Ile Ser Gly Pro Phe Ser Thr
440 445 450
Glu Asp Val Ala Ser Asn Cys Val Pro Ala Gln Ser Leu Ser Glu
455 460 465
Pro Ile Leu Trp Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly
470 475 480
Ala Ile Leu Leu Val Leu Ile Val Leu Leu Leu Pro Phe Arg
485 490 495
Cys Gln Arg Arg Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser
500 505 510
Ser Leu Val Arg His Arg Trp Lys
515

<210> 197

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 197

cgcagaagct acagattctc g 21

<210> 198

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 198

ggaaatttgg a ggc c aa a g c 19

<210> 199

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 199

ggatgttagcc a gca a ctgtg 20

<210> 200
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 200
gccttggctc gttctcttc 19

<210> 201
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 201
ggtcctgtgc ctggatgg 18

<210> 202
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 202
gacaagacta cctccgttgg tc 22

<210> 203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 203
tgatgcacag ttcagcacct gttg 24

<210> 204
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 204
cgctccaagg gctttgacgt cacagtgaag tacacacaag gaagctg 47

<210> 205
<211> 1939
<212> DNA

<213> Homo sapiens

<400> 205

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cagggcgat cgccagccgc ctggcggcga tccagggcg tgcgggcct 100
gggcgggagc cgggaggcgc ggccggcatg gaggcgctgc tgctggcgc 150
ggggttgctg ctggcgctt acgtgcttgt ctactacaac ctggtaagg 200
ccccggcgtg cggcggcatg ggcaacctgc ggggcccac ggccgtggc 250
acgggcgcca acagcggcat cgaaaagatg acggcgctgg agctggcgc 300
ccggggagcg cgcgtggtgc tggcctgccc cagccaggag cgccgggagg 350
cggtgcctt cgacctccgc caggagatg ggaacaatga ggtcatcttc 400
atggccttgg acttggccag tctggcctcg gtgcgggcct ttgccactgc 450
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tcagttcctg tggccggacc cgtgaggcgt ttaacctgct gcttcgggtg 550
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ggcatgtgcc cctagccgcg tgggtgggt agcctcagct gcccactgtc 650
ggggacgtct tgacttcaaa cgcctggacc gcccagtggt gggctggcgg 700
caggagctgc gggcatatgc tgacactaag ctggctaatt tactgtttgc 750
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cccacccagg gcctgtgaac tcggagctgt tcctgcgccca tgttcctgga 850
tggctgcgcc cactttgcg cccattggct tggctggtgc tccgggcacc 900
aagaggggggt gcccagacac ccctgtattt tgctctacaa gagggcatcg 950
agccctcag tggagatat tttgccaact gccatgtgga agaggtgcct 1000
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ttccgggcgg atgcagggtct ggggtcatct gtatctgaag cccctcgaa 1900
taaagcgcgt tgaccgccaa aaaaaaaaaa aaaaaaaaaa 1939

<210> 206

<211> 377

<212> PRT

<213> Homo sapiens

<400> 206

Met	Glu	Ala	Leu	Leu	Leu	Gly	Ala	Gly	Leu	Leu	Leu	Gly	Ala	Tyr
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Val	Leu	Val	Tyr	Tyr	Asn	Leu	Val	Lys	Ala	Pro	Pro	Cys	Gly	Gly
								25						30
Met	Gly	Asn	Leu	Arg	Gly	Arg	Thr	Ala	Val	Val	Thr	Gly	Ala	Asn
				35					40					45
Ser	Gly	Ile	Gly	Lys	Met	Thr	Ala	Leu	Glu	Leu	Ala	Arg	Arg	Gly
				50					55					60
Ala	Arg	Val	Val	Leu	Ala	Cys	Arg	Ser	Gln	Glu	Arg	Gly	Glu	Ala
				65					70					75
Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu	Val	Ile
				80					85					90
Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala	Phe
				95					100					105
Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
				110					115					120
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe
				125					130					135
Asn	Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr
				140					145					150

His Leu Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val
155 160 165

Val Val Val Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe
170 175 180

Lys Arg Leu Asp Arg Pro Val Val Gly Trp Arg Gln Glu Leu Arg
185 190 195

Ala Tyr Ala Asp Thr Lys Leu Ala Asn Val Leu Phe Ala Arg Glu
200 205 210

Leu Ala Asn Gln Leu Glu Ala Thr Gly Val Thr Cys Tyr Ala Ala
215 220 225

His Pro Gly Pro Val Asn Ser Glu Leu Phe Leu Arg His Val Pro
230 235 240

Gly Trp Leu Arg Pro Leu Leu Arg Pro Leu Ala Trp Leu Val Leu
245 250 255

Arg Ala Pro Arg Gly Gly Ala Gln Thr Pro Leu Tyr Cys Ala Leu
260 265 270

Gln Glu Gly Ile Glu Pro Leu Ser Gly Arg Tyr Phe Ala Asn Cys
275 280 285

His Val Glu Glu Val Pro Pro Ala Ala Arg Asp Asp Arg Ala Ala
290 295 300

His Arg Leu Trp Glu Ala Ser Lys Arg Leu Ala Gly Leu Gly Pro
305 310 315

Gly Glu Asp Ala Glu Pro Asp Glu Asp Pro Gln Ser Glu Asp Ser
320 325 330

Glu Ala Pro Ser Ser Leu Ser Thr Pro His Pro Glu Glu Pro Thr
335 340 345

Val Ser Gln Pro Tyr Pro Ser Pro Gln Ser Ser Pro Asp Leu Ser
350 355 360

Lys Met Thr His Arg Ile Gln Ala Lys Val Glu Pro Glu Ile Gln
365 370 375

Leu Ser

<210> 207
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 207
cttcatggcc ttggacttgg ccag 24

<210> 208
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 208
acgccagtggttcaaggctg gttg 24

<210> 209
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 209
ctttctgagc tctgagccac gggtggacat cctcatccac aatgc 45

<210> 210
<211> 3716
<212> DNA
<213> Homo sapiens

<400> 210
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gctcatcatg ggaggcatgg ctcaggactc cccgccccag atcctagtcc 100
acccccagga ccagctgttc cagggccctg gccctgccag gatgagctgc 150
caaggcttag gccagccacc tcccaccatc cgctggttgc tgaatggca 200
gccctgagc atggtgccccc cagacccaca ccacctcctg cctgatggga 250
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ttctggctgt gcgaattcag ctggaaaatg tgacactgct gaacccggat 750

cctgcagagg gccccaaagcc tagaccggcg gtgtggctca gctggaaggt 800
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ggctggcaga ggcagagct tggaggccctc cactggggcc aagactacga 950
gttcaaagtg agaccatcct ctggccgggc tcgaggccct gacagcaacg 1000
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tatgagaccg taggtcaaaa gcaccatcct cgtactgttg tcactatgag 3650

cttaagaaat ttgataccat aaaatggtaa aaaaaaaaaaaa aaaaaaaaaaa 3700

aaaaaaaaaaa aaaaaaa 3716

<210> 211

<211> 985

<212> PRT

<213> Homo sapiens

<400> 211

Met Gly Gly Met Ala Gln Asp Ser Pro Pro Gln Ile Leu Val His
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Pro Gln Asp Gln Leu Phe Gln Gly Pro Gly Pro Ala Arg Met Ser
20 25 30

Cys Gln Ala Ser Gly Gln Pro Pro Pro Thr Ile Arg Trp Leu Leu
35 40 45

Asn Gly Gln Pro Leu Ser Met Val Pro Pro Asp Pro His His Leu
50 55 60

Leu Pro Asp Gly Thr Leu Leu Leu Gln Pro Pro Ala Arg Gly
65 70 75

His Ala His Asp Gly Gln Ala Leu Ser Thr Asp Leu Gly Val Tyr
80 85 90

Thr Cys Glu Ala Ser Asn Arg Leu Gly Thr Ala Val Ser Arg Gly
95 100 105

Ala Arg Leu Ser Val Ala Val Leu Arg Glu Asp Phe Gln Ile Gln
110 115 120

Pro Arg Asp Met Val Ala Val Val Gly Glu Gln Phe Thr Leu Glu
125 130 135

Cys Gly Pro Pro Trp Gly His Pro Glu Pro Thr Val Ser Trp Trp
140 145 150

Lys Asp Gly Lys Pro Leu Ala Leu Gln Pro Gly Arg His Thr Val
155 160 165

Ser Gly Gly Ser Leu Leu Met Ala Arg Ala Glu Lys Ser Asp Glu
170 175 180

Gly Thr Tyr Met Cys Val Ala Thr Asn Ser Ala Gly His Arg Glu
185 190 195

Ser Arg Ala Ala Arg Val Ser Ile Gln Glu Pro Gln Asp Tyr Thr
200 205 210

Glu Pro Val Glu Leu Leu Ala Val Arg Ile Gln Leu Glu Asn Val
215 220 225

Thr Leu Leu Asn Pro Asp Pro Ala Glu Gly Pro Lys Pro Arg Pro
230 235 240

Ala Val Trp Leu Ser Trp Lys Val Ser Gly Pro Ala Ala Pro Ala
 245 250 255
 Gln Ser Tyr Thr Ala Leu Phe Arg Thr Gln Thr Ala Pro Gly Gly
 260 265 270
 Gln Gly Ala Pro Trp Ala Glu Glu Leu Leu Ala Gly Trp Gln Ser
 275 280 285
 Ala Glu Leu Gly Gly Leu His Trp Gly Gln Asp Tyr Glu Phe Lys
 290 295 300
 Val Arg Pro Ser Ser Gly Arg Ala Arg Gly Pro Asp Ser Asn Val
 305 310 315
 Leu Leu Leu Arg Leu Pro Glu Lys Val Pro Ser Ala Pro Pro Gln
 320 325 330
 Glu Val Thr Leu Lys Pro Gly Asn Gly Thr Val Phe Val Ser Trp
 335 340 345
 Val Pro Pro Pro Ala Glu Asn His Asn Gly Ile Ile Arg Gly Tyr
 350 355 360
 Gln Val Trp Ser Leu Gly Asn Thr Ser Leu Pro Pro Ala Asn Trp
 365 370 375
 Thr Val Val Gly Glu Gln Thr Gln Leu Glu Ile Ala Thr His Met
 380 385 390
 Pro Gly Ser Tyr Cys Val Gln Val Ala Ala Val Thr Gly Ala Gly
 395 400 405
 Ala Gly Glu Pro Ser Arg Pro Val Cys Leu Leu Leu Glu Gln Ala
 410 415 420
 Met Glu Arg Ala Thr Gln Glu Pro Ser Glu His Gly Pro Trp Thr
 425 430 435
 Leu Glu Gln Leu Arg Ala Thr Leu Lys Arg Pro Glu Val Ile Ala
 440 445 450
 Thr Cys Gly Val Ala Leu Trp Leu Leu Leu Gly Thr Ala Val
 455 460 465
 Cys Ile His Arg Arg Arg Arg Ala Arg Val His Leu Gly Pro Gly
 470 475 480
 Leu Tyr Arg Tyr Thr Ser Glu Asp Ala Ile Leu Lys His Arg Met
 485 490 495
 Asp His Ser Asp Ser Gln Trp Leu Ala Asp Thr Trp Arg Ser Thr
 500 505 510
 Ser Gly Ser Arg Asp Leu Ser Ser Ser Ser Ser Leu Ser Ser Arg
 515 520 525
 Leu Gly Ala Asp Ala Arg Asp Pro Leu Asp Cys Arg Arg Ser Leu

	530	535	540
Leu Ser Trp Asp Ser Arg Ser Pro Gly Val Pro Leu Leu Pro Asp			
545	550	555	
Thr Ser Thr Phe Tyr Gly Ser Leu Ile Ala Glu Leu Pro Ser Ser			
560	565	570	
Thr Pro Ala Arg Pro Ser Pro Gln Val Pro Ala Val Arg Arg Leu			
575	580	585	
Pro Pro Gln Leu Ala Gln Leu Ser Ser Pro Cys Ser Ser Ser Asp			
590	595	600	
Ser Leu Cys Ser Arg Arg Gly Leu Ser Ser Pro Arg Leu Ser Leu			
605	610	615	
Ala Pro Ala Glu Ala Trp Lys Ala Lys Lys Lys Gln Glu Leu Gln			
620	625	630	
His Ala Asn Ser Ser Pro Leu Leu Arg Gly Ser His Ser Leu Glu			
635	640	645	
Leu Arg Ala Cys Glu Leu Gly Asn Arg Gly Ser Lys Asn Leu Ser			
650	655	660	
Gln Ser Pro Gly Ala Val Pro Gln Ala Leu Val Ala Trp Arg Ala			
665	670	675	
Leu Gly Pro Lys Leu Leu Ser Ser Asn Glu Leu Val Thr Arg			
680	685	690	
His Leu Pro Pro Ala Pro Leu Phe Pro His Glu Thr Pro Pro Thr			
695	700	705	
Gln Ser Gln Gln Thr Gln Pro Pro Val Ala Pro Gln Ala Pro Ser			
710	715	720	
Ser Ile Leu Leu Pro Ala Ala Pro Ile Pro Ile Leu Ser Pro Cys			
725	730	735	
Ser Pro Pro Ser Pro Gln Ala Ser Ser Leu Ser Gly Pro Ser Pro			
740	745	750	
Ala Ser Ser Arg Leu Ser Ser Ser Leu Ser Ser Leu Gly Glu			
755	760	765	
Asp Gln Asp Ser Val Leu Thr Pro Glu Glu Val Ala Leu Cys Leu			
770	775	780	
Glu Leu Ser Glu Gly Glu Glu Thr Pro Arg Asn Ser Val Ser Pro			
785	790	795	
Met Pro Arg Ala Pro Ser Pro Pro Thr Thr Tyr Gly Tyr Ile Ser			
800	805	810	
Val Pro Thr Ala Ser Glu Phe Thr Asp Met Gly Arg Thr Gly Gly			
815	820	825	

Gly Val Gly Pro Lys Gly Gly Val Leu Leu Cys Pro Pro Arg Pro
830 835 840

Cys Leu Thr Pro Thr Pro Ser Glu Gly Ser Leu Ala Asn Gly Trp
845 850 855

Gly Ser Ala Ser Glu Asp Asn Ala Ala Ser Ala Arg Ala Ser Leu
860 865 870

Val Ser Ser Ser Asp Gly Ser Phe Leu Ala Asp Ala His Phe Ala
875 880 885

Arg Ala Leu Ala Val Ala Val Asp Ser Phe Gly Phe Gly Leu Glu
890 895 900

Pro Arg Glu Ala Asp Cys Val Phe Ile Asp Ala Ser Ser Pro Pro
905 910 915

Ser Pro Arg Asp Glu Ile Phe Leu Thr Pro Asn Leu Ser Leu Pro
920 925 930

Leu Trp Glu Trp Arg Pro Asp Trp Leu Glu Asp Met Glu Val Ser
935 940 945

His Thr Gln Arg Leu Gly Arg Gly Met Pro Pro Trp Pro Pro Asp
950 955 960

Ser Gln Ile Ser Ser Gln Arg Ser Gln Leu His Cys Arg Met Pro
965 970 975

Lys Ala Gly Ala Ser Pro Val Asp Tyr Ser
980 985

<210> 212

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 212

gaagggacct acatgtgtgt ggcc 24

<210> 213

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 213

actgacacctc cagctgagcc acac 24

<210> 214

<211> 50

<212> DNA

<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide probe

<400> 214
aggactacac ggagcctgtg gagttctgg ctgtgcgaat tcagctggaa 50

<210> 215
<211> 2749
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1869, 1887
<223> unknown base

<400> 215
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gcgggttcga aggggacact gtgtccctgc agtgcaccta cagggaaagag 150
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<210> 216

<211> 332

<212> PRT

<213> Homo sapiens

<400> 216

Met	Arg	Leu	Leu	Val	Leu	Leu	Trp	Gly	Cys	Leu	Leu	Leu	Pro	Gly
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Tyr	Glu	Ala	Leu	Glu	Gly	Pro	Glu	Glu	Ile	Ser	Gly	Phe	Glu	Gly
				20					25				30	
Asp	Thr	Val	Ser	Leu	Gln	Cys	Thr	Tyr	Arg	Glu	Glu	Leu	Arg	Asp
					35				40				45	
His	Arg	Lys	Tyr	Trp	Cys	Arg	Lys	Gly	Gly	Ile	Leu	Phe	Ser	Arg
					50				55				60	
Cys	Ser	Gly	Thr	Ile	Tyr	Ala	Glu	Glu	Gly	Gln	Glu	Thr	Met	
				65					70				75	
Lys	Gly	Arg	Val	Ser	Ile	Arg	Asp	Ser	Arg	Gln	Glu	Leu	Ser	Leu
				80					85				90	
Ile	Val	Thr	Leu	Trp	Asn	Leu	Thr	Leu	Gln	Asp	Ala	Gly	Glu	Tyr
				95					100				105	
Trp	Cys	Gly	Val	Glu	Lys	Arg	Gly	Pro	Asp	Glu	Ser	Leu	Leu	Ile
				110					115				120	
Ser	Leu	Phe	Val	Phe	Pro	Gly	Pro	Cys	Cys	Pro	Pro	Ser	Pro	Ser
				125					130				135	
Pro	Thr	Phe	Gln	Pro	Leu	Ala	Thr	Thr	Arg	Leu	Gln	Pro	Lys	Ala
				140					145				150	
Lys	Ala	Gln	Gln	Thr	Gln	Pro	Pro	Gly	Leu	Thr	Ser	Pro	Gly	Leu
				155					160				165	
Tyr	Pro	Ala	Ala	Thr	Thr	Ala	Lys	Gln	Gly	Lys	Thr	Gly	Ala	Glu
				170					175				180	
Ala	Pro	Pro	Leu	Pro	Gly	Thr	Ser	Gln	Tyr	Gly	His	Glu	Arg	Thr
				185					190				195	
Ser	Gln	Tyr	Thr	Gly	Thr	Ser	Pro	His	Pro	Ala	Thr	Ser	Pro	Pro

200 205 210
Ala Gly Ser Ser Arg Pro Pro Met Gln Leu Asp Ser Thr Ser Ala
215 220 225
Glu Asp Thr Ser Pro Ala Leu Ser Ser Gly Ser Ser Lys Pro Arg
230 235 240
Val Ser Ile Pro Met Val Arg Ile Leu Ala Pro Val Leu Val Leu
245 250 255
Leu Ser Leu Leu Ser Ala Ala Gly Leu Ile Ala Phe Cys Ser His
260 265 270
Leu Leu Leu Trp Arg Lys Glu Ala Gln Gln Ala Thr Glu Thr Gln
275 280 285
Arg Asn Glu Lys Phe Trp Leu Ser Arg Leu Thr Ala Glu Glu Lys
290 295 300
Glu Ala Pro Ser Gln Ala Pro Glu Gly Asp Val Ile Ser Met Pro
305 310 315
Pro Leu His Thr Ser Glu Glu Glu Leu Gly Phe Ser Lys Phe Val
320 325 330
Ser Ala

<210> 217

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 217

ccctgcagtg cacctacagg gaag 24

<210> 218

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 218

ctgtcttccc ctgcttggt gtgg 24

<210> 219

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 219
ggtcaggaa gggtgggatc ctcttctctc gctgctctgg ccacatc 47

<210> 220
<211> 950
<212> DNA
<213> Homo sapiens

<400> 220
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cagtgtgaaa gaaccagtgg ttcgcctcg ttgccccaggc tagagtgtac 150
tggcggtgatc atagctcaact gcagcctcag actcctggac ttgagaaatc 200
ctcctgcctt agcctcctgc atatctggaa ctccaggggt gcactcaagc 250
cctgtttctt ctccttctgt gagtggacca cggaggctgg tgagctgcct 300
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gctgggatca tggatggc cctggctgt ctgctcagct gctgctacc 450
ctccagtgag gccaagctc acggtcgttg tgaactggcc agagtgtac 500
atgacttcgg gctggacgga taccggggat acgcctggc tgactgggtc 550
tgccttgctt atttcacaag cggttcaac gcagctgcct tggactacga 600
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actgccaggg aaaagacctc actgaatggg tggatggctg tgacttctag 850
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<210> 221
<211> 146
<212> PRT
<213> Homo sapiens

<400> 221
Met Leu Leu Ala Leu Val Cys Leu Leu Ser Cys Leu Leu Pro Ser
1 5 10 15
Ser Glu Ala Lys Leu Tyr Gly Arg Cys Glu Leu Ala Arg Val Leu
20 25 30

His Asp Phe Gly Leu Asp Gly Tyr Arg Gly Tyr Ser Leu Ala Asp
35 40 45

Trp Val Cys Leu Ala Tyr Phe Thr Ser Gly Phe Asn Ala Ala Ala
50 55 60

Leu Asp Tyr Glu Ala Asp Gly Ser Thr Asn Asn Gly Ile Phe Gln
65 70 75

Ile Asn Ser Arg Arg Trp Cys Ser Asn Leu Thr Pro Asn Val Pro
80 85 90

Asn Val Cys Arg Met Tyr Cys Ser Asp Leu Leu Asn Pro Asn Leu
95 100 105

Lys Asp Thr Val Ile Cys Ala Met Lys Ile Thr Gln Glu Pro Gln
110 115 120

Gly Leu Gly Tyr Trp Glu Ala Trp Arg His His Cys Gln Gly Lys
125 130 135

Asp Leu Thr Glu Trp Val Asp Gly Cys Asp Phe
140 145

<210> 222
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 222
gggatcatgt tggccctt ggtc 24

<210> 223
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 223
gcaaggcaga cccagtcagc cag 23

<210> 224
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 224
ctgcctgcta ccctccaagt gaggccaagc tctacggtcg ttgtg 45

<210> 225

<211> 2049
<212> DNA
<213> Homo sapiens

<400> 225
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cgagcaactg gctgtacctg gccaaagctgt cgtcggtggg gagcatctca 150
gaggaggaga cgtgcgagaa actcaagggc ctgatccaga ggcaggtgca 200
gatgtgcaag cggAACCTGG aagtcatgga ctcggtgccc cgcgggtgccc 250
agctggccat tgaggagtgc cagtaccagt tccggAACCG gcgctggAAC 300
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gactcgggag gcgcccttcg tgtacgccc ctcttcggca ggtgtggcct 400
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acacacacac ggacacacac acacacctgc gagagagagg gagaaaggg 2000
ctgtgcctt gcagtcatgc ccgagtcacc ttgcacagca ctgttcctc 2049

<210> 226

<211> 351

<212> PRT

<213> Homo sapiens

<400> 226

Met	Ser	Pro	Arg	Ser	Cys	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Val	Phe
1									10					15

Ala	Val	Phe	Ser	Ala	Ala	Ala	Ser	Asn	Trp	Leu	Tyr	Leu	Ala	Lys
										25				30

Leu	Ser	Ser	Val	Gly	Ser	Ile	Ser	Glu	Glu	Glu	Thr	Cys	Glu	Lys
								35		40				45

Leu	Lys	Gly	Leu	Ile	Gln	Arg	Gln	Val	Gln	Met	Cys	Lys	Arg	Asn
					50				55					60

Leu	Glu	Val	Met	Asp	Ser	Val	Arg	Arg	Gly	Ala	Gln	Leu	Ala	Ile
					65				70					75

Glu	Glu	Cys	Gln	Tyr	Gln	Phe	Arg	Asn	Arg	Arg	Trp	Asn	Cys	Ser
					80				85					90

Thr	Leu	Asp	Ser	Leu	Pro	Val	Phe	Gly	Lys	Val	Val	Thr	Gln	Gly
									95		100			105

Thr	Arg	Glu	Ala	Ala	Phe	Val	Tyr	Ala	Ile	Ser	Ser	Ala	Gly	Val
									110		115			120

Ala Phe Ala Val Thr Arg Ala Cys Ser Ser Gly Glu Leu Glu Lys
125 130 135

Cys Gly Cys Asp Arg Thr Val His Gly Val Ser Pro Gln Gly Phe
140 145 150

Gln Trp Ser Gly Cys Ser Asp Asn Ile Ala Tyr Gly Val Ala Phe
155 160 165

Ser Gln Ser Phe Val Asp Val Arg Glu Arg Ser Lys Gly Ala Ser
170 175 180

Ser Ser Arg Ala Leu Met Asn Leu His Asn Asn Glu Ala Gly Arg
185 190 195

Lys Ala Ile Leu Thr His Met Arg Val Glu Cys Lys Cys His Gly
200 205 210

Val Ser Gly Ser Cys Glu Val Lys Thr Cys Trp Arg Ala Val Pro
215 220 225

Pro Phe Arg Gln Val Gly His Ala Leu Lys Glu Lys Phe Asp Gly
230 235 240

Ala Thr Glu Val Glu Pro Arg Arg Val Gly Ser Ser Arg Ala Leu
245 250 255

Val Pro Arg Asn Ala Gln Phe Lys Pro His Thr Asp Glu Asp Leu
260 265 270

Val Tyr Leu Glu Pro Ser Pro Asp Phe Cys Glu Gln Asp Met Arg
275 280 285

Ser Gly Val Leu Gly Thr Arg Gly Arg Thr Cys Asn Lys Thr Ser
290 295 300

Lys Ala Ile Asp Gly Cys Glu Leu Leu Cys Cys Gly Arg Gly Phe
305 310 315

His Thr Ala Gln Val Glu Leu Ala Glu Arg Cys Ser Cys Lys Phe
320 325 330

His Trp Cys Cys Phe Val Lys Cys Arg Gln Cys Gln Arg Leu Val
335 340 345

Glu Leu His Thr Cys Arg
350

<210> 227
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 227
gctgcagctg caaattccac tgg 23

<210> 228
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 228
tggtgccgaga ctgtttaaat tatcggcc 28

<210> 229
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 229
tgcttcgtca agtgccggca gtgccagcgg ctcgtggagt t 41

<210> 230
<211> 1355
<212> DNA
<213> Homo sapiens

<400> 230
cgacgcgtg ggcggacgcg tggcggacg cgtggcgg a cgcgtggct 50
gggtgcctgc atgcgcattgg acaccaccagg gtacagcaag tggggcggca 100
gctccgagga ggtccccgg a gggccctgg gacgctgggt gcactggagc 150
aggagacccc tcttcttggc cctggctgtc ctggcacca cagtccttg 200
ggctgtgatt ctgagtatcc tattgtccaa ggcctccacg gagcgcgcgg 250
cgctgcttga cggccacgac ctgctgagga caaacgcctc gaagcagacg 300
gcggcgctgg gtgccctgaa ggaggaggc ggagactgcc acagctgctg 350
ctcggggacg caggcgcagc tgcagaccac ggcgcggag cttggggagg 400
cgcaggcgaa gctgatggag caggagacg ccctgcggga actgcgtgag 450
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cactgagctg ttccgggcgc tggaggccgt gaggctccag aacaactcct 550
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aaaaaa 1355

<210> 231
<211> 293
<212> PRT
<213> Homo sapiens

<400> 231
Met Asp Thr Thr Arg Tyr Ser Lys Trp Gly Gly Ser Ser Glu Glu
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Val Pro Gly Gly Pro Trp Gly Arg Trp Val His Trp Ser Arg Arg
20 25 30
Pro Leu Phe Leu Ala Leu Ala Val Leu Val Thr Thr Val Leu Trp
35 40 45
Ala Val Ile Leu Ser Ile Leu Leu Ser Lys Ala Ser Thr Glu Arg
50 55 60
Ala Ala Leu Leu Asp Gly His Asp Leu Leu Arg Thr Asn Ala Ser
65 70 75
Lys Gln Thr Ala Ala Leu Gly Ala Leu Lys Glu Glu Val Gly Asp
80 85 90
Cys His Ser Cys Cys Ser Gly Thr Gln Ala Gln Leu Gln Thr Thr
95 100 105
Arg Ala Glu Leu Gly Glu Ala Gln Ala Lys Leu Met Glu Gln Glu
110 115 120
Ser Ala Leu Arg Glu Leu Arg Glu Arg Val Thr Gln Gly Leu Ala
125 130 135

Glu Ala Gly Arg Gly Arg Glu Asp Val Arg Thr Glu Leu Phe Arg
140 145 150

Ala Leu Glu Ala Val Arg Leu Gln Asn Asn Ser Cys Glu Pro Cys
155 160 165

Pro Thr Ser Trp Leu Ser Phe Glu Gly Ser Cys Tyr Phe Phe Ser
170 175 180

Val Pro Lys Thr Thr Trp Ala Ala Ala Gln Asp His Cys Ala Asp
185 190 195

Ala Ser Ala His Leu Val Ile Val Gly Gly Leu Asp Glu Gln Gly
200 205 210

Phe Leu Thr Arg Asn Thr Arg Gly Arg Gly Tyr Trp Leu Gly Leu
215 220 225

Arg Ala Val Arg His Leu Gly Lys Val Gln Gly Tyr Gln Trp Val
230 235 240

Asp Gly Val Ser Leu Ser Phe Ser His Trp Asn Gln Gly Glu Pro
245 250 255

Asn Asp Ala Trp Gly Arg Glu Asn Cys Val Met Met Leu His Thr
260 265 270

Gly Leu Trp Asn Asp Ala Pro Cys Asp Ser Glu Lys Asp Gly Trp
275 280 285

Ile Cys Glu Lys Arg His Asn Cys
290

<210> 232
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 232
gcgagaactg tgtcatgatg ctgc 24

<210> 233
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 233
gtttctgaga ctcagcagcg gtgg 24

<210> 234
<211> 50
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 234

caccgtgtga cagcgagaag gacggctgga tctgtgagaa aaggcacaac 50

<210> 235

<211> 1847

<212> DNA

<213> Homo sapiens

<400> 235

gccaggggaa gagggtgatc cgaccgggg aaggtcgtg ggcaggcg 50

gttggaaag cggcagcccc cgccgccccc gcagccctt ctccctttt 100

ctcccacgtc ctatctgcct ctcgtggag gccaggccgt gcagcatcg 150

agacaggagg aactggagcc tcattggccg gcccgggcg ccggcctcg 200

gcttaaatag gagctccggg ctctggctgg gacccgaccg ctggcgccg 250

cgctcccgct gtcctgccc ggtgatggaa aaccccgacc cggccgccc 300

cctggcaag gccctctgcg ctctccctt ggccactctc ggcggcccg 350

gccagcctct tggggagag tccatctgtt cgcgcagagc cccggccaaa 400

tacagcatca cttcacggg caagtggagc cagacggct tcccaagca 450

gtacccctg ttccgccccc ctgcgcagt gtctcgctg ctggggccg 500

cgcatacgctc cgactacagc atgtggagga agaaccagta cgtcagtaac 550

gggctgcgcg actttgcgga gcgcggcgag gcctgggcgc tcatgaagga 600

gatcgaggcg gcgggggagg cgctgcagag cgtgcacgag gtgtttcgg 650

cgcggccgt ccccgccgc accgggcaga cgtcgccga gctggagggtg 700

cagcgaggc actcgctggt ctctttgtg gtgcgcatcg tgcccagccc 750

cgcactggttc gtggcggtgg acagcctgga cctgtgcgac ggggaccgtt 800

ggcgaaaca ggcggcgctg gacctgtacc cctacgacgc cgggacggac 850

agcggcttca cttctccctc ccccaacttc gccaccatcc cgcaggacac 900

ggtgaccgag ataacgtcct cctctccca ccacccggcc aactccttct 950

actacccgcg gctgaaggcc ctgcctccca tcgcccagggt gacactgctg 1000

cggctgcgac agagcccaag ggccttcatc cctccggcc cagtcctgcc 1050

cagcaggac aatgagattg tagacagcgc ctcagttcca gaaacgccc 1100

tggactgcga ggtctccctg tggtcgtcct ggggactgtg cgaggaggccac 1150
tgtgggaggc tcgggaccaa gagcaggact cgctacgtcc gggtccagcc 1200
cgccaacaac gggagcccct gcccgagct cgaagaagag gctgagtgcg 1250
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tgctcacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa 1847

<210> 236

<211> 331

<212> PRT

<213> Homo sapiens

<400> 236

Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys
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Ala Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly
20 25 30

Gly Glu Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile
35 40 45

Thr Phe Thr Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr
50 55 60

Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala
65 70 75

Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val
80 85 90

Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu Ala Trp Ala
95 100 105

Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln Ser Val

110	115	120
His Glu Val Phe Ser Ala Pro Ala Val	Pro Ser Gly Thr Gly Gln	
125	130	135
Thr Ser Ala Glu Leu Glu Val Gln Arg Arg His Ser Leu Val Ser		
140	145	150
Phe Val Val Arg Ile Val Pro Ser Pro Asp Trp Phe Val Gly Val		
155	160	165
Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp Arg Glu Gln Ala		
170	175	180
Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp Ser Gly Phe		
185	190	195
Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp Thr Val		
200	205	210
Thr Glu Ile Thr Ser Ser Ser Pro Ser His Pro Ala Asn Ser Phe		
215	220	225
Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr		
230	235	240
Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala		
245	250	255
Pro Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser		
260	265	270
Val Pro Glu Thr Pro Leu Asp Cys Glu Val Ser Leu Trp Ser Ser		
275	280	285
Trp Gly Leu Cys Gly Gly His Cys Gly Arg Leu Gly Thr Lys Ser		
290	295	300
Arg Thr Arg Tyr Val Arg Val Gln Pro Ala Asn Asn Gly Ser Pro		
305	310	315
Cys Pro Glu Leu Glu Glu Ala Glu Cys Val Pro Asp Asn Cys		
320	325	330
Val		

<210> 237
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 237
cagcactgcc aggggaagag gg 22

<210> 238
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 238
caggactcgac tacgtccg 18

<210> 239
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 239
cagcccctttc tcctcctttc tccc 24

<210> 240
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 240
gcagttatca gggacgcact cagcc 25

<210> 241
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 241
ccagcgagag gcagatag 18

<210> 242
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 242
cggtcaccgt gtcctgcggg atg 23

<210> 243
<211> 42
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 243

cagccccttc tcctccttc tcccacgtcc tatctgcctc tc 42

<210> 244

<211> 1894

<212> DNA

<213> Homo sapiens

<400> 244

ggcgccgtcc gtgaggggct ccttgggca gggtagtgt ttgggtgtccc 50

tgtcttgcgt gatattgaca aactgaagct ttcctgcacc actggactta 100

aggaagagtg tactcgtagg cgacagctt tagtggccgg ccggccgctc 150

tcatcccccg taaggagcag agtccttgcgt actgaccaag atgagcaaca 200

tctacatcca ggagcctccc acgaatggga aggttttatt gaaaactaca 250

gctggagata ttgacataga gttgtggtcc aaagaagctc ctaaagcttg 300

cagaaatttt atccaacttt gtttggaaagc ttattatgac aataccattt 350

ttcatagagt tgtgcctggc ttcatagtc aaggcggaga tcctactggc 400

acagggagtg gtggagagtc tatctatgga gcgcattca aagatgaatt 450

tcattcacgg ttgcgtttta atcggagagg actgggtgcc atggcaaatg 500

ctgggtctca tgataatggc agccagttt tcttcacact gggtcgagca 550

gatgaactta acaataagca taccatctt ggaaaggtt cagggatac 600

agtatataac atgttgcac tgtcagaagt agacattgt gatgacgaaa 650

gaccacataa tccacacaaa ataaaaagct gtgaggttt gtttaatcct 700

tttgcgttgcata tcattccaag ggaaattaaa aggctgaaaa aagagaaacc 750

agaggaggaa gtaaagaaat tgaaacccaa aggacacaaaa aatttttagtt 800

tactttcatt tggagagggaa gctgaggaag aagaggagga agtaaatcga 850

gttagtcaga gcatgaaggg caaaagcaaa agtagtcatt acttgctaa 900

ggatgatcca catctcagtt ctgttccagt tgttagaaagt gaaaaaggtg 950

atgcaccaga tttagttgt gatggagaag atgaaagtgc agagcatgtat 1000

gaatatattt atgggtatgtaa aagaacctg atgagagaaa gaattgccaa 1050

aaaataaaaa aaggacacaa gtgcgtatgt taaatcagct ggagaaggag 1100

aagtggagaa gaaatcagtc agccgcagtq aagagctcag aaaagaagca 1150
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catgtgtttt ttccctagctg acctttata ttgctaaatc taaaataaaa 1850
taactttcct tccacaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1894

<210> 245

<211> 472

<212> PRT

<213> Homo sapiens

<400> 245

Met	Ser	Asn	Ile	Tyr	Ile	Gln	Glu	Pro	Pro	Thr	Asn	Gly	Lys	Val
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Leu	Leu	Lys	Thr	Thr	Ala	Gly	Asp	Ile	Asp	Ile	Glu	Leu	Trp	Ser
				20					25				30	

Lys	Glu	Ala	Pro	Lys	Ala	Cys	Arg	Asn	Phe	Ile	Gln	Leu	Cys	Leu
				35				40				45		

Glu	Ala	Tyr	Tyr	Asp	Asn	Thr	Ile	Phe	His	Arg	Val	Val	Pro	Gly
				50				55				60		

Phe	Ile	Val	Gln	Gly	Gly	Asp	Pro	Thr	Gly	Thr	Gly	Ser	Gly	Gly
				65				70				75		

Glu	Ser	Ile	Tyr	Gly	Ala	Pro	Phe	Lys	Asp	Glu	Phe	His	Ser	Arg
				80				85				90		

Leu	Arg	Phe	Asn	Arg	Arg	Gly	Leu	Val	Ala	Met	Ala	Asn	Ala	Gly
				95				100				105		

Ser His Asp Asn Gly Ser Gln Phe Phe Phe Thr Leu Gly Arg Ala
110 115 120

Asp Glu Leu Asn Asn Lys His Thr Ile Phe Gly Lys Val Thr Gly
125 130 135

Asp Thr Val Tyr Asn Met Leu Arg Leu Ser Glu Val Asp Ile Asp
140 145 150

Asp Asp Glu Arg Pro His Asn Pro His Lys Ile Lys Ser Cys Glu
155 160 165

Val Leu Phe Asn Pro Phe Asp Asp Ile Ile Pro Arg Glu Ile Lys
170 175 180

Arg Leu Lys Lys Glu Lys Pro Glu Glu Val Lys Lys Leu Lys
185 190 195

Pro Lys Gly Thr Lys Asn Phe Ser Leu Leu Ser Phe Gly Glu Glu
200 205 210

Ala Glu Glu Glu Glu Glu Val Asn Arg Val Ser Gln Ser Met
215 220 225

Lys Gly Lys Ser Lys Ser Ser His Asp Leu Leu Lys Asp Asp Pro
230 235 240

His Leu Ser Ser Val Pro Val Val Glu Ser Glu Lys Gly Asp Ala
245 250 255

Pro Asp Leu Val Asp Asp Gly Glu Asp Glu Ser Ala Glu His Asp
260 265 270

Glu Tyr Ile Asp Gly Asp Glu Lys Asn Leu Met Arg Glu Arg Ile
275 280 285

Ala Lys Lys Leu Lys Lys Asp Thr Ser Ala Asn Val Lys Ser Ala
290 295 300

Gly Glu Gly Glu Val Glu Lys Lys Ser Val Ser Arg Ser Glu Glu
305 310 315

Leu Arg Lys Glu Ala Arg Gln Leu Lys Arg Glu Leu Leu Ala Ala
320 325 330

Lys Gln Lys Lys Val Glu Asn Ala Ala Lys Gln Ala Glu Lys Arg
335 340 345

Ser Glu Glu Glu Glu Ala Pro Pro Asp Gly Ala Val Ala Glu Tyr
350 355 360

Arg Arg Glu Lys Gln Lys Tyr Glu Ala Leu Arg Lys Gln Gln Ser
365 370 375

Lys Lys Gly Thr Ser Arg Glu Asp Gln Thr Leu Ala Leu Leu Asn
380 385 390

Gln Phe Lys Ser Lys Leu Thr Gln Ala Ile Ala Glu Thr Pro Glu

395 400 405
Asn Asp Ile Pro Glu Thr Glu Val Glu Asp Asp Glu Gly Trp Met
410 415 420
Ser His Val Leu Gln Phe Glu Asp Lys Ser Arg Lys Val Lys Asp
425 430 435
Ala Ser Met Gln Asp Ser Asp Thr Phe Glu Ile Tyr Asp Pro Arg
440 445 450
Asn Pro Val Asn Lys Arg Arg Arg Glu Glu Ser Lys Lys Leu Met
455 460 465
Arg Glu Lys Lys Glu Arg Arg
470

<210> 246
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 246
tgcggagatc ctactggcac aggg 24

<210> 247
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 247
cgagtttagtc agagcatg 18

<210> 248
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 248
cagatgggtgc tgttgccg 18

<210> 249
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 249
caactggAAC aggaACTGAG atgtGGATC 29

<210> 250
<211> 24
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 250
ctggTTcAGC agtgcaAGGG tctg 24

<210> 251
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 251
cctCTCCGAT taaaACGC 18

<210> 252
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 252
gagaggACTG gttGCCatgg caaatGCTgg ttctcatGat aatgg 45

<210> 253
<211> 2456
<212> DNA
<213> Homo sapiens

<400> 253
cgccGCCGTT ggggCTggAA gttCCCGCCA ggtCCGTGCC gggcGAGAGA 50
gatGCTGCCC ggCCCGCCTC ggCTTgagg cgAGAGAAGt gtcccAGACC 100
cattTCGCTC tgCTGACGGC gtcGAGCCt ggCCAGACAT gtccACAGGG 150
ttctCCTTCg ggtCCGGGAC tctGGGCTCC accaccGTgg ccGCCGGCGG 200
gaccAGCACA ggCGGGCgtt tctCCTTCgg aacGGGAACG tctAGCAACC 250
cttCTGTGGG gCTCAATTt ggAAATCTG gaAGTACTTC aactCCAGCA 300
actACATCTG ctcCTTCAAG tggTTTggA accGGGCTCT ttggatctaa 350
acctGCCACT gggTTcACTC taggAGGAAC aaatacAGGT gcCTTGcaca 400

ccaagaggcc tcaagtggc accaaatatg gaaccctgca agaaaaacag 450
atgcgtgtgg ggaagacacc catccaagtc ttttttaggag tccccttctc 500
cagacccctt ctaggttatcc tcaggtttgc acctccagaa ccccccggagc 550
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aaaaaaaa 2456

<210> 254

<211> 545

<212> PRT

<213> Homo sapiens

<400> 254

Met	Ser	Thr	Gly	Phe	Ser	Phe	Gly	Ser	Gly	Thr	Leu	Gly	Ser	Thr
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Thr	Val	Ala	Ala	Gly	Gly	Thr	Ser	Thr	Gly	Gly	Val	Phe	Ser	Phe
				20				25				30		

Gly	Thr	Gly	Thr	Ser	Ser	Asn	Pro	Ser	Val	Gly	Leu	Asn	Phe	Gly
				35				40				45		

Asn	Leu	Gly	Ser	Thr	Ser	Thr	Pro	Ala	Thr	Thr	Ser	Ala	Pro	Ser
				50					55			60		

Ser	Gly	Phe	Gly	Thr	Gly	Leu	Phe	Gly	Ser	Lys	Pro	Ala	Thr	Gly
				65				70			75			

Phe	Thr	Leu	Gly	Gly	Thr	Asn	Thr	Gly	Ala	Leu	His	Thr	Lys	Arg
					80			85				90		

Pro	Gln	Val	Val	Thr	Lys	Tyr	Gly	Thr	Leu	Gln	Gly	Lys	Gln	Met
				95				100				105		

His	Val	Gly	Lys	Thr	Pro	Ile	Gln	Val	Phe	Leu	Gly	Val	Pro	Phe
				110				115				120		

Ser	Arg	Pro	Pro	Leu	Gly	Ile	Leu	Arg	Phe	Ala	Pro	Pro	Glu	Pro
				125				130				135		

Pro Glu Pro Trp Lys Gly Ile Arg Asp Ala Thr Thr Tyr Pro Pro
 140 145 150
 Gly Trp Ser Leu Ala Leu Ser Pro Gly Trp Ser Ala Val Ala Arg
 155 160 165
 Ser Arg Leu Thr Ala Thr Ser Ala Ser Arg Val Gln Ala Ser Leu
 170 175 180
 Leu Pro Gln Pro Leu Ser Val Trp Gly Tyr Arg Cys Leu Gln Glu
 185 190 195
 Ser Trp Gly Gln Leu Ala Ser Met Tyr Val Ser Thr Arg Glu Arg
 200 205 210
 Tyr Lys Trp Leu Arg Phe Ser Glu Asp Cys Leu Tyr Leu Asn Val
 215 220 225
 Tyr Ala Pro Ala Arg Ala Pro Gly Asp Pro Gln Leu Pro Val Met
 230 235 240
 Val Trp Phe Pro Gly Gly Ala Phe Ile Val Gly Ala Ala Ser Ser
 245 250 255
 Tyr Glu Gly Ser Asp Leu Ala Ala Arg Glu Lys Val Val Leu Val
 260 265 270
 Phe Leu Gln His Arg Leu Gly Ile Phe Gly Phe Leu Ser Thr Asp
 275 280 285
 Asp Ser His Ala Arg Gly Asn Trp Gly Leu Leu Asp Gln Met Ala
 290 295 300
 Ala Leu Arg Trp Val Gln Glu Asn Ile Ala Ala Phe Gly Gly Asp
 305 310 315
 Pro Gly Asn Val Thr Leu Phe Gly Gln Ser Ala Gly Ala Met Ser
 320 325 330
 Ile Ser Gly Leu Met Met Ser Pro Leu Ala Ser Gly Leu Phe His
 335 340 345
 Arg Ala Ile Ser Gln Ser Gly Thr Ala Leu Phe Arg Leu Phe Ile
 350 355 360
 Thr Ser Asn Pro Leu Lys Val Ala Lys Lys Val Ala His Leu Ala
 365 370 375
 Gly Cys Asn His Asn Ser Thr Gln Ile Leu Val Asn Cys Leu Arg
 380 385 390
 Ala Leu Ser Gly Thr Lys Val Met Arg Val Ser Asn Lys Met Arg
 395 400 405
 Phe Leu Gln Leu Asn Phe Gln Arg Asp Pro Glu Glu Ile Ile Trp
 410 415 420
 Ser Met Ser Pro Val Val Asp Gly Val Val Ile Pro Asp Asp Pro

425 430 435

Leu Val Leu Leu Thr Gln Gly Lys Val Ser Ser Val Pro Tyr Leu
440 445 450

Leu Gly Val Asn Asn Leu Glu Phe Asn Trp Leu Leu Pro Tyr Asn
455 460 465

Ile Thr Lys Glu Gln Val Pro Leu Val Val Glu Glu Tyr Leu Asp
470 475 480

Asn Val Asn Glu His Asp Trp Lys Met Leu Arg Asn Arg Met Met
485 490 495

Asp Ile Val Gln Asp Ala Thr Phe Val Tyr Ala Thr Leu Gln Thr
500 505 510

Ala His Tyr His Arg Glu Thr Pro Met Met Gly Ile Cys Pro Ala
515 520 525

Gly His Ala Thr Thr Arg Met Lys Ser Thr Cys Ser Trp Ile Leu
530 535 540

Pro Gln Glu Trp Ala
545

<210> 255

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 255

agggtgcctgc aggagtcctg ggg 23

<210> 256

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 256

ccacacctcagg aagccgaaga tgcc 24

<210> 257

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 257

gaacggtaca agtggctgcg cttcagcag gactgtctgt accttg 45

<210> 258
<211> 2764
<212> DNA
<213> Homo sapiens

<400> 258
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actgccactg ctgctgtcct cgctgctggg cgggtcccag gctatggatg 100
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aatcggcattc acggctttc tttcctctg cctggccctg atcatcatga 1300

agattctacc gaagagacgg actcagacag aaaccccgag gcccagggttc 1350
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tcaccttaaa aaaa 2764

<210> 259

<211> 544

<212> PRT

<213> Homo sapiens

<400> 259

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Ala	Met	Asp	Gly	Arg	Phe	Trp	Ile	Arg	Val	Gln	Glu	Ser	Val	Met
							20		25					30
Val	Pro	Glu	Gly	Leu	Cys	Ile	Ser	Val	Pro	Cys	Ser	Phe	Ser	Tyr
						35			40					45
Pro	Arg	Gln	Asp	Trp	Thr	Gly	Ser	Thr	Pro	Ala	Tyr	Gly	Tyr	Trp
				50				55						60
Phe	Lys	Ala	Val	Thr	Glu	Thr	Thr	Lys	Gly	Ala	Pro	Val	Ala	Thr
					65				70					75
Asn	His	Gln	Ser	Arg	Glu	Val	Glu	Met	Ser	Thr	Arg	Gly	Arg	Phe
					80				85					90
Gln	Leu	Thr	Gly	Asp	Pro	Ala	Lys	Gly	Asn	Cys	Ser	Leu	Val	Ile
				95				100						105
Arg	Asp	Ala	Gln	Met	Gln	Asp	Glu	Ser	Gln	Tyr	Phe	Phe	Arg	Val
				110				115						120
Glu	Arg	Gly	Ser	Tyr	Val	Thr	Tyr	Asn	Phe	Met	Asn	Asp	Gly	Phe
				125				130						135
Phe	Leu	Lys	Val	Thr	Val	Leu	Ser	Phe	Thr	Pro	Arg	Pro	Gln	Asp
				140				145						150
His	Asn	Thr	Asp	Leu	Thr	Cys	His	Val	Asp	Phe	Ser	Arg	Lys	Gly
				155				160						165
Val	Ser	Ala	Gln	Arg	Thr	Val	Arg	Leu	Arg	Val	Ala	Tyr	Ala	Pro
				170				175						180
Arg	Asp	Leu	Val	Ile	Ser	Ile	Ser	Arg	Asp	Asn	Thr	Pro	Ala	Leu
				185				190						195
Glu	Pro	Gln	Pro	Gln	Gly	Asn	Val	Pro	Tyr	Leu	Glu	Ala	Gln	Lys
				200				205						210
Gly	Gln	Phe	Leu	Arg	Leu	Leu	Cys	Ala	Ala	Asp	Ser	Gln	Pro	Pro
				215				220						225
Ala	Thr	Leu	Ser	Trp	Val	Leu	Gln	Asn	Arg	Val	Leu	Ser	Ser	Ser
				230				235						240
His	Pro	Trp	Gly	Pro	Arg	Pro	Leu	Gly	Leu	Glu	Leu	Pro	Gly	Val
				245				250						255

Lys Ala Gly Asp Ser Gly Arg Tyr Thr Cys Arg Ala Glu Asn Arg
260 265 270

Leu Gly Ser Gln Gln Arg Ala Leu Asp Leu Ser Val Gln Tyr Pro
275 280 285

Pro Glu Asn Leu Arg Val Met Val Ser Gln Ala Asn Arg Thr Val
290 295 300

Leu Glu Asn Leu Gly Asn Gly Thr Ser Leu Pro Val Leu Glu Gly
305 310 315

Gln Ser Leu Cys Leu Val Cys Val Thr His Ser Ser Pro Pro Ala
320 325 330

Arg Leu Ser Trp Thr Gln Arg Gly Gln Val Leu Ser Pro Ser Gln
335 340 345

Pro Ser Asp Pro Gly Val Leu Glu Leu Pro Arg Val Gln Val Glu
350 355 360

His Glu Gly Glu Phe Thr Cys His Ala Arg His Pro Leu Gly Ser
365 370 375

Gln His Val Ser Leu Ser Leu Ser Val His Tyr Lys Lys Gly Leu
380 385 390

Ile Ser Thr Ala Phe Ser Asn Gly Ala Phe Leu Gly Ile Gly Ile
395 400 405

Thr Ala Leu Leu Phe Leu Cys Leu Ala Leu Ile Ile Met Lys Ile
410 415 420

Leu Pro Lys Arg Arg Thr Gln Thr Glu Thr Pro Arg Pro Arg Phe
425 430 435

Ser Arg His Ser Thr Ile Leu Asp Tyr Ile Asn Val Val Pro Thr
440 445 450

Ala Gly Pro Leu Ala Gln Lys Arg Asn Gln Lys Ala Thr Pro Asn
455 460 465

Ser Pro Arg Thr Pro Pro Pro Pro Gly Ala Pro Ser Pro Glu Ser
470 475 480

Lys Lys Asn Gln Lys Lys Gln Tyr Gln Leu Pro Ser Phe Pro Glu
485 490 495

Pro Lys Ser Ser Thr Gln Ala Pro Glu Ser Gln Glu Ser Gln Glu
500 505 510

Glu Leu His Tyr Ala Thr Leu Asn Phe Pro Gly Val Arg Pro Arg
515 520 525

Pro Glu Ala Arg Met Pro Lys Gly Thr Gln Ala Asp Tyr Ala Glu
530 535 540

Val Lys Phe Gln

<210> 260
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 260
caaaggctgc gcctggctcg tg 22

<210> 261
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 261
ttctggagcc cagagggtgc tgag 24

<210> 262
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 262
ggagctgcc a cccattcaaa tggagcacga aggagagtcc acctg 45

<210> 263
<211> 2857
<212> DNA
<213> Homo sapiens

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caacagaaaa ctctcaaaca aagaaaagtca agcagccagt gcgatctcat 150
ttgagagtga agcgtggctg ggtgtggAAC caatTTTtG taccagagGA 200
aatgaatacg actagtcatc acatcgGCCa gctaagatct gatttagaca 250
atggAAACAA ttctttccAG tacaagCTtI tgggagCTGG agCTGGAAgt 300
acttttatca ttgatgaaAG aacaggtgac atatatGCCA tacagaAGCT 350
tgatagagAG gagcgatccc tctacatctt aagagCCCAg gtaatAGACA 400
tcgctactgg aagggctgtg gaacctgagt ctgagtttgt catcaaagt 450

tcggatatca atgacaatga accaaaattc ctagatgaac cttatgaggc 500
cattgtacca gagatgtctc cagaaggaac attagttatc caggtgacag 550
caagtgatgc tgacgatccc tcaagtggta ataatgctcg tctcctctac 600
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cataagaata tcttctaaaa tggatagaga actgcaagat gagtattggg 700
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ggacttctat aggaacaatc atggcatatg ataatgacat aggagagaat 900
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actgtatgtg caagttctta acatcaatga tcatgctcct gagttctctc 1450
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gaaaacagat tctatttcct gagaaaagtg aagatttcag agagaatata 1950
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atttaaa 2857

<210> 264
<211> 772
<212> PRT
<213> Homo sapiens

<400> 264
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20 25 30
Val Lys Gln Pro Val Arg Ser His Leu Arg Val Lys Arg Gly Trp
35 40 45
Val Trp Asn Gln Phe Phe Val Pro Glu Glu Met Asn Thr Thr Ser
50 55 60

His His Ile Gly Gln Leu Arg Ser Asp Leu Asp Asn Gly Asn Asn
 65 70 75
 Ser Phe Gln Tyr Lys Leu Leu Gly Ala Gly Ala Gly Ser Thr Phe
 80 85 90
 Ile Ile Asp Glu Arg Thr Gly Asp Ile Tyr Ala Ile Gln Lys Leu
 95 100 105
 Asp Arg Glu Glu Arg Ser Leu Tyr Ile Leu Arg Ala Gln Val Ile
 110 115 120
 Asp Ile Ala Thr Gly Arg Ala Val Glu Pro Glu Ser Glu Phe Val
 125 130 135
 Ile Lys Val Ser Asp Ile Asn Asp Asn Glu Pro Lys Phe Leu Asp
 140 145 150
 Glu Pro Tyr Glu Ala Ile Val Pro Glu Met Ser Pro Glu Gly Thr
 155 160 165
 Leu Val Ile Gln Val Thr Ala Ser Asp Ala Asp Asp Pro Ser Ser
 170 175 180
 Gly Asn Asn Ala Arg Leu Leu Tyr Ser Leu Leu Gln Gly Gln Pro
 185 190 195
 Tyr Phe Ser Val Glu Pro Thr Thr Gly Val Ile Arg Ile Ser Ser
 200 205 210
 Lys Met Asp Arg Glu Leu Gln Asp Glu Tyr Trp Val Ile Ile Gln
 215 220 225
 Ala Lys Asp Met Ile Gly Gln Pro Gly Ala Leu Ser Gly Thr Thr
 230 235 240
 Ser Val Leu Ile Lys Leu Ser Asp Val Asn Asp Asn Lys Pro Ile
 245 250 255
 Phe Lys Glu Ser Leu Tyr Arg Leu Thr Val Ser Glu Ser Ala Pro
 260 265 270
 Thr Gly Thr Ser Ile Gly Thr Ile Met Ala Tyr Asp Asn Asp Ile
 275 280 285
 Gly Glu Asn Ala Glu Met Asp Tyr Ser Ile Glu Glu Asp Asp Ser
 290 295 300
 Gln Thr Phe Asp Ile Ile Thr Asn His Glu Thr Gln Glu Gly Ile
 305 310 315
 Val Ile Leu Lys Lys Lys Val Asp Phe Glu His Gln Asn His Tyr
 320 325 330
 Gly Ile Arg Ala Lys Val Lys Asn His His Val Pro Glu Gln Leu
 335 340 345
 Met Lys Tyr His Thr Glu Ala Ser Thr Thr Phe Ile Lys Ile Gln

350	355	360
Val Glu Asp Val Asp Glu Pro Pro Leu Phe Leu Leu Pro Tyr Tyr		
365	370	375
Val Phe Glu Val Phe Glu Glu Thr Pro Gln Gly Ser Phe Val Gly		
380	385	390
Val Val Ser Ala Thr Asp Pro Asp Asn Arg Lys Ser Pro Ile Arg		
395	400	405
Tyr Ser Ile Thr Arg Ser Lys Val Phe Asn Ile Asn Asp Asn Gly		
410	415	420
Thr Ile Thr Thr Ser Asn Ser Leu Asp Arg Glu Ile Ser Ala Trp		
425	430	435
Tyr Asn Leu Ser Ile Thr Ala Thr Glu Lys Tyr Asn Ile Glu Gln		
440	445	450
Ile Ser Ser Ile Pro Leu Tyr Val Gln Val Leu Asn Ile Asn Asp		
455	460	465
His Ala Pro Glu Phe Ser Gln Tyr Tyr Glu Thr Tyr Val Cys Glu		
470	475	480
Asn Ala Gly Ser Gly Gln Val Ile Gln Thr Ile Ser Ala Val Asp		
485	490	495
Arg Asp Glu Ser Ile Glu Glu His His Phe Tyr Phe Asn Leu Ser		
500	505	510
Val Glu Asp Thr Asn Asn Ser Ser Phe Thr Ile Ile Asp Asn Gln		
515	520	525
Asp Asn Thr Ala Val Ile Leu Thr Asn Arg Thr Gly Phe Asn Leu		
530	535	540
Gln Glu Glu Pro Val Phe Tyr Ile Ser Ile Leu Ile Ala Asp Asn		
545	550	555
Gly Ile Pro Ser Leu Thr Ser Thr Asn Thr Leu Thr Ile His Val		
560	565	570
Cys Asp Cys Gly Asp Ser Gly Ser Thr Gln Thr Cys Gln Tyr Gln		
575	580	585
Glu Leu Val Leu Ser Met Gly Phe Lys Thr Glu Val Ile Ile Ala		
590	595	600
Ile Leu Ile Cys Ile Met Ile Ile Phe Gly Phe Ile Phe Leu Thr		
605	610	615
Leu Gly Leu Lys Gln Arg Arg Lys Gln Ile Leu Phe Pro Glu Lys		
620	625	630
Ser Glu Asp Phe Arg Glu Asn Ile Phe Gln Tyr Asp Asp Glu Gly		
635	640	645

Gly Gly Glu Glu Asp Thr Glu Ala Phe Asp Ile Ala Glu Leu Arg
650 655 660

Ser Ser Thr Ile Met Arg Glu Arg Lys Thr Arg Lys Thr Thr Ser
665 670 675

Ala Glu Ile Arg Ser Leu Tyr Arg Gln Ser Leu Gln Val Gly Pro
680 685 690

Asp Ser Ala Ile Phe Arg Lys Phe Ile Leu Glu Lys Leu Glu Glu
695 700 705

Ala Asn Thr Asp Pro Cys Ala Pro Pro Phe Asp Ser Leu Gln Thr
710 715 720

Tyr Ala Phe Glu Gly Thr Gly Ser Leu Ala Gly Ser Leu Ser Ser
725 730 735

Leu Glu Ser Ala Val Ser Asp Gln Asp Glu Ser Tyr Asp Tyr Leu
740 745 750

Asn Glu Leu Gly Pro Arg Phe Lys Arg Leu Ala Cys Met Phe Gly
755 760 765

Ser Ala Val Gln Ser Asn Asn
770

<210> 265
<211> 349
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 24, 60, 141, 226, 228, 249, 252
<223> unknown base

<400> 265
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gaatattttn taaaatggat agagaactgc aagatgagta ttgggtaatc 100
attcaagcca aggacatgat tggtcagcca ggagcggtgt ntggaaacaac 150
aagtgtatta attaaacttt cagatgttaa tgacaataag cctatattta 200
aagaaaagttt ataccgcttg actgtntng aatctgcacc cactgggant 250
tntataggaa caatcatggc atatgataat gacataggag agaatgcaga 300
aatggattac agcattgaag aggatgattc gcaaacattt gacattatt 349

<210> 266
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe
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cttgactgtc tctgaatctg caccc 25

<210> 267
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 267
aagtggtga agcctccagt gtgg 24

<210> 268
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 268
ccactacggt attagagcaa aagttaaaaa ccatcatggt tcctggagca 50
gc 52

<210> 269
<211> 2747
<212> DNA
<213> Homo sapiens

<400> 269
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cccaaccccg acccagagct tctccagcg cgcgccagcg agcagggctc 100
ccgccttaa cttcctccgc gggcccagc caccttcggg agtccgggtt 150
gcccacctgc aaactctccg cttctgcac ctgccacccc tgagccagcg 200
cgggcccccgg agcgagtcat ggccaacgcg gggctgcagc tgttggctt 250
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cccagtggag gatttactcc tatgccggcg acaacatcg taccggccag 350
gccatgtacg aggggctgtg gatgtctgc gtgtcgacgc gcaccggca 400
gatccagtgc aaagtctttg actccctgct gaatctgagc agcacattgc 450
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<210> 270

<211> 211

<212> PRT

<213> Homo sapiens

<400> 270

Met	Ala	Asn	Ala	Gly	Leu	Gln	Leu	Leu	Gly	Phe	Ile	Leu	Ala	Phe
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Leu	Gly	Trp	Ile	Gly	Ala	Ile	Val	Ser	Thr	Ala	Leu	Pro	Gln	Trp
			20					25						30

Arg	Ile	Tyr	Ser	Tyr	Ala	Gly	Asp	Asn	Ile	Val	Thr	Ala	Gln	Ala
				35					40					45

Met	Tyr	Glu	Gly	Leu	Trp	Met	Ser	Cys	Val	Ser	Gln	Ser	Thr	Gly
				50				55						60

Gln	Ile	Gln	Cys	Lys	Val	Phe	Asp	Ser	Leu	Leu	Asn	Leu	Ser	Ser
				65					70					75

Thr	Leu	Gln	Ala	Thr	Arg	Ala	Leu	Met	Val	Val	Gly	Ile	Leu	Leu
				80				85						90

Gly	Val	Ile	Ala	Ile	Phe	Val	Ala	Thr	Val	Gly	Met	Lys	Cys	Met
				95					100					105

Lys	Cys	Leu	Glu	Asp	Asp	Glu	Val	Gln	Lys	Met	Arg	Met	Ala	Val
				110					115					120

Ile Gly Gly Ala Ile Phe Leu Leu Ala Gly Leu Ala Ile Leu Val
125 130 135

Ala Thr Ala Trp Tyr Gly Asn Arg Ile Val Gln Glu Phe Tyr Asp
140 145 150

Pro Met Thr Pro Val Asn Ala Arg Tyr Glu Phe Gly Gln Ala Leu
155 160 165

Phe Thr Gly Trp Ala Ala Ala Ser Leu Cys Leu Leu Gly Gly Ala
170 175 180

Leu Leu Cys Cys Ser Cys Pro Arg Lys Thr Thr Ser Tyr Pro Thr
185 190 195

Pro Arg Pro Tyr Pro Lys Pro Ala Pro Ser Ser Gly Lys Asp Tyr
200 205 210

Val

<210> 271
<211> 564
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 21, 69, 163, 434, 436, 444
<223> unknown base

<400> 271
ttctggccaa acccggggct ncagctgttg ggcttcatct cgccttcctg 50
ggatggatcg ggcacatcnt cacactgccc ttccccagtg gaggattta 100
ctccctatgc tggcgacaac atcgtgaccg cccagcccat gtacgagggg 150
ctgtggatgt ccngcgtgtc gcagagcacc gggcagatcc agtgcaaagt 200
ctttgactcc ttgctgaatc tgagcagcac attgcaagca acccgtgcct 250
tgcgttgtt tggcatcctc ctgggagtga tagcaatctt tgtggccacc 300
gttggcatga agtgttatgaa gtgcttgaa gacgatgagg tgcagaagat 350
gaggatggct gtcattgggg gcgcgatatt tcttcttgca ggtctggcta 400
tttttagttgc cacagcatgg tatggcaata gaancnttca acanttctat 450
gaccctatga ccccaagtcaa tgccaggtac gaatttggtc aggctctt 500
cactggctgg gctgctgctt ctctctgcct tctgggaggt gccctacttt 550
gctgttcctg tccc 564

<210> 272
<211> 498

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 30, 49, 102, 141, 147, 171, 324-325, 339-341
<223> unknown base

<400> 272
acccttgacc caacgcggcc ccccgaccgn ttcatggcca aacgcgggnc 50
tccagctgtt gggcttcatt ctcccattcc tggatggac cgccgcggcat 100
cntcagcaact gccctgcccc agtggaggat ttactcctat nccggcnaca 150
acatcggtac cgcccaggcc ntgtacgagg ggctgtggat gtccctgcgtg 200
tcgcagagca ccgggcagat ccagtgcaaa gtcttgact cccttgctga 250
atctgagcag cacattgcaa gcaacccgtg cttgtatgggt ggtggcattc 300
ctcctggag tgatagcaat cttnnntggcc accgttgttnt ntgaagtgtta 350
tgaagtgcatt ggaagacgat gaggtgcaga agatgaggat ggctgtcatt 400
gggggcgcga tatttcttct tgcaaggcttg gctatttttag ttgccacagc 450
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccga 498

<210> 273
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 25, 57, 67, 94-95, 116, 152, 165, 212, 233, 392-394
<223> unknown base

<400> 273
gggcccggacc attatccaac cgggntcaact gttggctcat ctccctcctg 50
gatgaancgc gccatcntca gactccctgc cccatggaga tttnnncctat 100
gctggcgaca acatcntgac ccccaagccat gtacgagggg ctgttgaacgt 150
cngcgtgtcg cagancaccg ggcagatcca gtgcaaagtc tttgactcct 200
tgctgaatct gngcagcaca ttgcagcaac ccntgccctg atggtggttg 250
gcattcccttctt gggagtgata gcaatcttg tggccaccgt tggcatgaag 300
tgtatgaagt gcttggaaaga cgatgagggtg cagaagatga ggatggctgt 350
cattgggggc gcgatatttc ttcttgcaagg tctggctatt tnnnngttgcc 400
acagcatggt atggcaatag aatcgttcaa gaattctatg accctatgac 450

DNA Sequence Database

cccagtcaat gccaggtacg aatttggtca ggctctttc actggctggg 500
ctgctgccttc tctctgcctt ctgggagggtg ccctactttg ctgttcctgc 550
ga 552

<210> 274
<211> 526
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 25, 50, 60, 123, 127, 370, 395, 397-398, 402-403, 405-407
<223> unknown base

<400> 274
attotccctt cctggatgga tcgcnccacc gtcacattgc cttccccan 50
tggaggattn actcctatgc tggcgacaac atcgtgaccc cccaggccat 100
ttaccgaggg gctttggatg tcntgcntgt cgcaagcac cgggcagatc 150
ccagtgcaaa gtcttgact cttgctgaa tctgagcagc acattgcaag 200
caacccgtgc cttgatgggg ttggcatcct cctgggagtg atagcaacct 250
ttgtggccac cggtggcatg aagtgtatga agtgcttgg aagcgtatgag 300
gtgccagaag atgaggatgg ctgtcattgg gggcgcgata tttcttgg 350
caggtctggc tatttttagtn gccacagcat ggtatggcaa tagantnnnt 400
cnngnnntct atgaccctat gaccccgatc aatgccaggt acgaatttgg 450
tcaggtcttc ttcaactggct gggctgctgc ttctctctgc cttctggag 500
gtgccctact ttgctgttcc tgtccc 526

<210> 275
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 22, 61, 91, 144, 238-239, 262, 265-266, 271, 274
<223> unknown base

<400> 275
agagcacccgg cagatcccaag tncaaagtct ttgacccttg ctgaatctga 50
gcagcacatt ncaagcaacc cttgccttg aaggtggttg ncatcccccc 100
tgggagtgaa tagcaatctt tgtggccacc gttggcatga agtntatgaa 150
tgcttgaa gacgtgagg tgcagaagat gaggatggct gtcattgggg 200

gcgatatt tcttcttgca ggtctggcta ttttagtnnc cacagcatgg 250
tatggcaata gnatnnttcg ngnntctat gaccctatga ccccagtcaa 300
tgccaggtac gaatttggtc aggctcttt cactggctgg gctgctgctt 350
ctctctgcct tctgggaggt gccctacttt gctgttcctg tccccgaa 398

<210> 276
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 39, 58, 130, 234, 314, 364, 427, 450, 461, 476
<223> unknown base

<400> 276
agcaatgccc tgcccccagt ggaggattaa ttccatatgtt gggacaaca 50
ttgtgacngc ccaggccatg tacggggggc tgtggatgtc ctgcgtgtcg 100
cagagcaccc ggcagatcca gtgcggatgtt tttgactcct tgctgaattt 150
gagcagcaca ttgcaagcaa cccgtgcctt gatggtggtt ggcattttcc 200
tgggagtgtat agcaatcttt gtggccaccg tggnaatgaa gtgtatgaag 250
tgcttggaaag acgatgaggt gcagaagatg aggtggctg tcattggggg 300
cgcgatattt cttnntgcag gtctggctat ttttagttgcc acagcatgg 350
atggcaatag aatngttcaa gaattttatg accctatgac cccagtcaat 400
gccaggtacg aatttggtca ggcttnttc actggctggg ctgctgctt 450
tttctgcctt ntgggaggtt ccctantttt gctgttcctgc gaacc 495

<210> 277
<211> 200
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 34, 87, 138, 147, 163, 165-166, 172
<223> unknown base

<400> 277
tcataggggg gcgatatt ttttcttgca ggtntggta ttttagttgc 50
cacagcatgg tatggcaata gaatcggtca agaattntat gaccctatga 100
ccccagtcaa tgccaggtac gaatttggtc aggctctttt cactggntgg 150
gctgctgctt ctntnngcct tntgggaggt gccctactttt gctgttcctg 200

<210> 278
<211> 542
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 26, 43, 55, 77, 198, 361-362, 391-392, 396
<223> unknown base

<400> 278
ttcctggat ggatccgccc ccatcntcac atgccctgcc ccntggagat 50
ttacncctat gctggcgaac aacatcntga ccgcccaggc catgtacgag 100
gggctgtgga atgtcctgcg tgtcccagag caccggcag atccagtgc 150
aagtcttga ctcccttgctg aatctgagca gcacattgca agcaaccntg 200
ccttgatggt ggttggcatc ctcctggag tgatagcaat ctttgtggcc 250
accgttggca taaaagtgtta tgaagtgc tt ggaagacgat gaggtgcaga 300
agatgaggat ggctgtcatt gggggcgca tatttcttct tgcaaggctg 350
gctattttag nngccacagc atggtatggc aatcagaccc nntcanaaac 400
tctatgaccc tatgacccca gtcaatgcca ggtacgaatt tggtcaggct 450
ctcttcactg gctgggctgc tgcttctctc tgccttctgg gaggtgccct 500
actttgctgt tcctgtcccc gaaaaacaac ctcttaccca cg 542

<210> 279
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 90, 115, 147, 228, 387
<223> unknown base

<400> 279
cggggctgca gctgttgggc ttcatctcg tcctggat ggaatcgccg 50
ccatcgtag cactgccctg ccccatggag gatttactcn tatgtggcg 100
acaacatcgat gaccnccag gccatgtacg aggggctgtg gatgtcngcg 150
tgtcgagag caccggcag atccagtgc aagtcttga ctccctgctg 200
aatctgagca gcacattgca agcaaccntg ctttgatggt ggttggcatc 250
ctcctggag tgatagcaat ctttgtggcc accgttggca tgaagtgtat 300
gaagtgcattt gaaagacgatg aggtgcagaa gatgaggatg gctgtcattt 350

ggggcgcgat atttcttctt gcaggtctgg ctatttnatg ttgccacagc 400
atggtatggc aatagaatcg ttcaagaattt ctatgaccct atgaccccaag 450
tcaatgccag gtacgaattt ggtcaggctc tcttcactgg ctgggctgct 500
gcttctctct gccttctggg aggtgccta ctttgctgtt cctgcgaa 548

<210> 280
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 280
cgagcgagtc atggccaacg c 21

<210> 281
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 281
gtgtcacacg tagtcttcc cgctgg 26

<210> 282
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 282
ctgcagctgt tgggcttcat tctcgccctc ctgggatgga tcg 43

<210> 283
<211> 2285
<212> DNA
<213> Homo sapiens

<400> 283
gcgtgccgtc agctcgccgg gcaccgcggc ctgcgcctcg ccctccggcc 50
ctgcgcctgc accgcgtaga ccgacccccc cctccagcgc gcccacccgg 100
tagaggaccc ccgccccgtgc cccgaccggc ccccgccctt ttgtaaaact 150
taaagcgggc gcagcattaa cgcttccgc cccggtgacc tctcaggggt 200
ctccccgcca aaggtgctcc gccgctaagg aacatggcga aggtggagca 250
ggtcctgagc ctcgagccgc agcacgagct caaatccgca ggtcccttca 300

ccgatgttgt caccaccaac ctaaagcttg gcaaccgcac agaccgaaat 350
gtgtgtttta aggtgaagac tacagcacca cgttagtact gtgtgaggcc 400
caacagcggaa atcatcgatg caggggcctc aattaatgta tctgtatgt 450
tacagccttt cgattatgat cccaatgaga aaagtaaaca caagtttatg 500
gttcagtcta tgtttgctcc aactgacact tcagatatgg aagcagttatg 550
gaaggaggca aaaccggaag accttatgga ttcaaaaactt agatgtgtgt 600
ttgaattgcc agcagagaat gataaaccac atgatgtaga aataaataaaa 650
attatatcca caactgcacaa aagacagaa acaccaatag tgtctaagtc 700
tctgagttct tctttggatg acaccgaatg taagaagggtt atggaagaat 750
gtaagaggct gcaagggtgaa gttcagagggc tacgggagga gaacaaggcag 800
ttcaaggaag aagatggact gcggatgagg aagacagtgc agagcaacag 850
ccccatttca gcattagccc caactgggaa ggaagaaggc cttagcaccc 900
ggctcttggc tctggtggtt ttgttctta tcgttgggtt aattattggg 950
aagattgcct ttagaggtt gcatgcacag gatggtaat tggattgggt 1000
gatccaccat atcatggat ttaaattttat cataaccatg tgtaaaaaga 1050
aattaatgta ttagatgacatc tcacaggctc tgcctttaaa ttacccctcc 1100
ctgcacacac atacacagat acacacacac aaatataatg taacgatctt 1150
tttagaaaagtt aaaaatgtat agtaactgtat tgagggggaa aaagaatgtat 1200
ctttattaaat gacaaggaa accatgagta atgccacaat ggcataattgt 1250
aaatgtcatt ttaaacattt gtaggccttg gtacatgatg ctggattacc 1300
tctcttaaaa tgacaccctt cctcgccctgt tggtgctggc cttggggag 1350
ctggagccca gcatgctggg gagtgcggtc agctccacac agtagtcccc 1400
acgtggccca ctccggccca aggctgcttt ccgtgtcttc agttctgtcc 1450
aagccatcag ctcccttggga ctgatgaaca gagtcagaag cccaaaggaa 1500
ttgcactgtg gcagcatcag acgtactcgat cataagttagt aggcgtgtgt 1550
tgactgattt acccagcgtt ttggaaataa atggcagtgc tttgttcaact 1600
taaaggacc aagctaaatt tggatgggtt catgtatgtga agtcaaactg 1650
ttattcagag atgtttaaatg catatttaac ttatttaatg tatttcattct 1700
catgtttctt tattgtcaca agagtagttaatgtaatgctgctgaa 1750

ctctgttggg tgaactggta ttgctgctgg agggctgtgg gtcctctgt 1800
ctctggagag tctggcatg tggagggtggg gtttattggg atgctggaga 1850
agagctgcc aagaatgttt tttctgggc agtaaataac aactgtcata 1900
gggagggaaa ttctcagtag tgacagtcaa ctctaggtta cctttttaa 1950
tgaagagtag tcagtcttct agattgttct tataccacct ctcaaccatt 2000
actcacactt ccagcgccc ggtccaagtc tgagcctgac ctccccttgg 2050
ggacctagcc tggagtcagg acaaatggat cgggctgcag agggttagaa 2100
gcgagggcac cagcagttgt gggggggag caagggaaaga gagaaactct 2150
tcagcgaatc cttctagtagac tagttgagag tttgactgtg aattaatttt 2200
atgccataaaa agaccaaccc agttctgtt gactatgtag catcttgaaa 2250
agaaaaaatta taataaagcc ccaaaattaa gaaaa 2285

<210> 284

<211> 243

<212> PRT

<213> Homo sapiens

<400> 284

Met Ala Lys Val Glu Gln Val Leu Ser Leu Glu Pro Gln His Glu
1 5 10 15

Leu Lys Phe Arg Gly Pro Phe Thr Asp Val Val Thr Thr Asn Leu
20 25 30

Lys Leu Gly Asn Pro Thr Asp Arg Asn Val Cys Phe Lys Val Lys
35 40 45

Thr Thr Ala Pro Arg Arg Tyr Cys Val Arg Pro Asn Ser Gly Ile
50 55 60

Ile Asp Ala Gly Ala Ser Ile Asn Val Ser Val Met Leu Gln Pro
65 70 75

Phe Asp Tyr Asp Pro Asn Glu Lys Ser Lys His Lys Phe Met Val
80 85 90

Gln Ser Met Phe Ala Pro Thr Asp Thr Ser Asp Met Glu Ala Val
95 100 105

Trp Lys Glu Ala Lys Pro Glu Asp Leu Met Asp Ser Lys Leu Arg
110 115 120

Cys Val Phe Glu Leu Pro Ala Glu Asn Asp Lys Pro His Asp Val
125 130 135

Glu Ile Asn Lys Ile Ile Ser Thr Thr Ala Ser Lys Thr Glu Thr
140 145 150

Pro Ile Val Ser Lys Ser Leu Ser Ser Ser Leu Asp Asp Thr Glu
155 160 165
Val Lys Lys Val Met Glu Glu Cys Lys Arg Leu Gln Gly Glu Val
170 175 180
Gln Arg Leu Arg Glu Glu Asn Lys Gln Phe Lys Glu Glu Asp Gly
185 190 195
Leu Arg Met Arg Lys Thr Val Gln Ser Asn Ser Pro Ile Ser Ala
200 205 210
Leu Ala Pro Thr Gly Lys Glu Glu Gly Leu Ser Thr Arg Leu Leu
215 220 225
Ala Leu Val Val Leu Phe Phe Ile Val Gly Val Ile Ile Gly Lys
230 235 240

Ile Ala Leu

<210> 285
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 40, 53, 68, 119, 134, 177-178, 255
<223> unknown base

<400> 285
gtcagtcttc tagattgtcc ttatcccacc tttcaaccan tactcacatt 50
tcnagcgccc aggtccangt ctgagcctga cttcccccttg gggaccttagc 100
ctggagtcag gacaatggnt cgggctgcag aggnttagaa gcgaggcac 150
cagcagttt ggggtggggag caagggngaa gagaaaactct tcagcgaatc 200
cttctagtagac tagttgagag tttgactgtg aattaatttt atgccataaa 250
agacnaaccc agttctgttt gactatgtag catcttgaaa agaaaaatta 300
taataaagcc ccaaaattaa gaattctttt gtcattttgt cacatttgct 350
ctatgggggg aattattatt ttatcatttt tattatttg ccattggaag 400
gttaacttta aaatgagc 418

<210> 286
<211> 543
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 73, 97

<223> unknown base

<400> 286

tattgtaaag gccattttaa accattggta ggccttggta catgatgctg 50
gattacctcc ttaaatgaca ccnttcctcg cctgttggtg ctggccnttg 100
gggagctgga gccccagcat gctggggagt gcggtcagct ccacacagta 150
gtccccacgt ggcccactcc cggcccaggc tgctttccgt gtcttcagtt 200
ctgtccaagc catcagctcc ttgggactga tgaacagagt cagaagccca 250
aaggaattgc cactgtggca gcatcagacy tactcgtcat aagtgagagg 300
cgtgtgttga ctgattgacc cagcgcttg gaaataaatg gcagtgcctt 350
gttcacttaa agggaccaag ctaaattgtt ttggttcatg tagtgaagtc 400
aaactgttat tcagagatgt ttaatgcata tttaacttat ttaatgtatt 450
tcatctcatg ttttcttatt gtcacaagag tacagttaat gctgcgtgct 500
gctgaactct gttgggtgaa ctggattgc tgctggaggg ctg 543

<210> 287

<211> 270

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 38, 64, 72, 164, 198, 200, 220, 222, 229, 242

<223> unknown base

<400> 287

ccctgggttgtt tttgttcttt aattcggtgg tgtaattttt ggaaagattg 50
ctttagagg tagnatgcac cnggctggta aattggattt gtggatccac 100
catatccatg ggatttaaat ttatcataac catgtgtaaa aagaaattaa 150
tgtatgtatgtt catntcacag gtattgcctt taaattaccc atccctgnan 200
acacatacac agatacacan anacaaatnt aatgtaacga tnttttagaa 250
agttaaaaat gtatagtaac 270

<210> 288

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 35, 116, 129, 197, 278, 294, 297, 349, 351

<223> unknown base

<400> 288
ggtgcccat tccggccca ggctgcttc cggtnntcag ttctgtccaa 50
gccatcagct ccttggact gatgaacaga gtcagaagcc caaaggaatt 100
gcactgtggc agcatnagac gtacttgtna taagttagag gcgtgtgtt 150
actgattgac ccagcgctt ggaaataaat ggcagtgc ttgcantta 200
aaggcacca gctaaattt tattggttca tgttagtgaag tcaaactgtt 250
attcagagat gtttatgca tatttaantt atttaatgta tttnatntca 300
tgtttctta ttgtcacaag agtacagtta atgctgcgtg ctgctgaant 350
ntgttgggtg aactggtatt gctgctggag ggctgtggc tcctctgtct 400
ttggagagtc tggcatgtg gaggtggg 428

<210> 289
<211> 320
<212> DNA
<213> Homo sapiens

<400> 289
tgcttcgt gtctcagtt ctgtccaagc catcagctcc ttggacttg 50
atgaacagag tcagaagccc aaaggaattt cactgtggca gcatcagacg 100
tactcgcat aagttagagg cgtgtgttga ctgattgacc cagcgctt 150
gaaataaatg gcagtgcattt gttcacttaa agggaccaag ctaaattt 200
attggttcat gtagtgaagt caaactgtta ttcagagatg ttatgcatt 250
attnaactta ttatgttat ttcatctcat gtttcttat tgtcacaaga 300
gtacagttaa tgctgcgtgc 320

<210> 290
<211> 609
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 57, 60, 186, 235, 244, 304, 339, 355, 359, 361, 387, 432, 441,
447, 481, 513, 532, 584, 598
<223> unknown base

<400> 290
aaaccttaa aagttgaggg gaaaagaatg atccttatt aatgacaagg 50
gaaaccntgn gtaatgccac aatggcatat tgtaaatgtc atttaaaca 100
ttggtaggcc ttggtagatg atgctggatt acctctctta aatgacacc 150
cttcctcgcc tgggtgtct ggcccttggg gagctngagc ccagcatgct 200

ggggagtgcg gtctgctcca cacagtagtc cccangtggc ccantcccg 250
cccaggctgc tttccgtgtc ttcaagccat cagtccttg 300
ggantgatga acagagtcag aagcccaaag gaattgcant gtggcagcat 350
cagangtant ngtcataagt gagaggcgtg tggtgantga ttgaccaggc 400
gctttggaaa taaatggcag tgcttggtc anttaaaggc nccaagntaa 450
atttgtattt gttcatgttag tgaagtcaaa ntgttattca gagatgttta 500
atgcataattt aanttatttca atgtatttca tntcatgttt tcttattgtc 550
acaagggtac agttaatgct gcgtgctgct gaantctgtt gggtaantg 600
gtattgctg 609

<210> 291
<211> 493
<212> DNA
<213> Homo sapiens

<400> 291
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cacagtagtc cccacgtggc ccactcccg cccaggctgc tttccgtgtc 100
ttcagttctg tccaagccat cagtccttg ggactgatga acagagtcag 150
aagcccaaag gaattgcact gtggcagcat cagacgtact cgtcataagt 200
gagaggcgtg tggtgactga ttgaccaggc gctttggaaa taaatggcag 250
tgcttggttc acttaaaggc accaagctaa atttgtattt gttcatgttag 300
tgaagtcaaa ctgttattca gagatgttta atgcataattt aacttatttca 350
atgtatttca tctcatgttt tcttattgtc acaagagtagc agttaatgct 400
gcgtgctgct gaactctgtt gggtaactg gtattgctgc tggagggctg 450
tgggcctc tgcgtctgga gagtcgtggc atgtggaggt ggg 493

<210> 292
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 292
gcaccaccgtt aggtacttgt gtgaggc 27

<210> 293
<211> 23
<212> DNA

<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide probe
<400> 293
aaccaccaga gccaaagagcc ggg 23

<210> 294
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 294
cagcgaaatc atcgatgcag gggcctcaat taatgttatct gtgatgttac 50

<210> 295
<211> 2530
<212> DNA
<213> Homo sapiens

<400> 295
gcgagctccg ggtgctgtgg cccggccttg gcggggcgcc ctccggctca 50
ggctggctga gaggctccca gctgcagcgt ccccgccccgc ctcctcggga 100
gctctgatct cagctgacag tgccctcggg gaccaaacaa gcctggcagg 150
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gcaccgacag caggttcagc atcttggaca aaaggttctt aaccaatttc 700
cctttcagca cagctgtgaa gcttccacg ggctgttagtg gcattctcat 750
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ctcagggtcc tactctaaga agaatctaattt aggtgctgg ttgtgttatta 1900
aatgtgaaat tgcatagata aaggttagatg gtaaagcaat tagtatcaga 1950
atagagacag aaagttacaa cacagttgt actactctga gatggatcca 2000
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attataaaca aaactaataa ctgtttact gctttaagaa ataacaatta 2150
caatgtgtat tatttaaaaa tgggagaaaat agtttgttct atgaaataaa 2200
cctagtttag aaataggaa gctgagacat tttaagatct caagttttta 2250
tttaactaat actcaaaata tggactttc atgtatgcat aggaaagaca 2300

cttcacaaat tatgaatgat catgtgttga aagccacatt attttatgct 2350
atacattcta tgtatgaggt gctacattt taggacaaag aattctgtaa 2400
tcttttcaa gaaagagtct ttttcctt gacaaaatcc agctttgtta 2450
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cctaaaaatg aataaaattt atgaatatga 2530

<210> 296
<211> 413
<212> PRT
<213> Homo sapiens

<400> 296

Met	Glu	Asn	Met	Leu	Leu	Trp	Leu	Ile	Phe	Phe	Thr	Pro	Gly	Trp
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Thr	Leu	Ile	Asp	Gly	Ser	Glu	Met	Glu	Trp	Asp	Phe	Met	Trp	His
				20				25						30
Leu	Arg	Lys	Val	Pro	Arg	Ile	Val	Ser	Glu	Arg	Thr	Phe	His	Leu
				35				40						45
Thr	Ser	Pro	Ala	Phe	Glu	Ala	Asp	Ala	Lys	Met	Met	Val	Asn	Thr
				50				55						60
Val	Cys	Gly	Ile	Glu	Cys	Gln	Lys	Glu	Leu	Pro	Thr	Pro	Ser	Leu
				65				70						75
Ser	Glu	Leu	Glu	Asp	Tyr	Leu	Ser	Tyr	Glu	Thr	Val	Phe	Glu	Asn
				80				85						90
Gly	Thr	Arg	Thr	Leu	Thr	Arg	Val	Lys	Val	Gln	Asp	Leu	Val	Leu
				95				100						105
Glu	Pro	Thr	Gln	Asn	Ile	Thr	Thr	Lys	Gly	Val	Ser	Val	Arg	Arg
				110				115						120
Lys	Arg	Gln	Val	Tyr	Gly	Thr	Asp	Ser	Arg	Phe	Ser	Ile	Leu	Asp
				125				130						135
Lys	Arg	Phe	Leu	Thr	Asn	Phe	Pro	Phe	Ser	Thr	Ala	Val	Lys	Leu
				140				145						150
Ser	Thr	Gly	Cys	Ser	Gly	Ile	Leu	Ile	Ser	Pro	Gln	His	Val	Leu
				155				160						165
Thr	Ala	Ala	His	Cys	Val	His	Asp	Gly	Lys	Asp	Tyr	Val	Lys	Gly
				170				175						180
Ser	Lys	Lys	Leu	Arg	Val	Gly	Leu	Leu	Lys	Met	Arg	Asn	Lys	Ser
				185				190						195
Gly	Gly	Lys	Lys	Arg	Arg	Gly	Ser	Lys	Arg	Ser	Arg	Arg	Glu	Ala
				200				205						210

Ser Gly Gly Asp Gln Arg Glu Gly Thr Arg Glu His Leu Gln Glu
215 220 225

Arg Ala Lys Gly Gly Arg Arg Arg Lys Lys Ser Gly Arg Gly Gln
230 235 240

Arg Ile Ala Glu Gly Arg Pro Ser Phe Gln Trp Thr Arg Val Lys
245 250 255

Asn Thr His Ile Pro Lys Gly Trp Ala Arg Gly Gly Met Gly Asp
260 265 270

Ala Thr Leu Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Arg Ala
275 280 285

His Lys Lys Lys Tyr Met Glu Leu Gly Ile Ser Pro Thr Ile Lys
290 295 300

Lys Met Pro Gly Gly Met Ile His Phe Ser Gly Phe Asp Asn Asp
305 310 315

Arg Ala Asp Gln Leu Val Tyr Arg Phe Cys Ser Val Ser Asp Glu
320 325 330

Ser Asn Asp Leu Leu Tyr Gln Tyr Cys Asp Ala Glu Ser Gly Ser
335 340 345

Thr Gly Ser Gly Val Tyr Leu Arg Leu Lys Asp Pro Asp Lys Lys
350 355 360

Asn Trp Lys Arg Lys Ile Ile Ala Val Tyr Ser Gly His Gln Trp
365 370 375

Val Asp Val His Gly Val Gln Lys Asp Tyr Asn Val Ala Val Arg
380 385 390

Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys Leu Trp Ile His Gly
395 400 405

Asn Asp Ala Asn Cys Ala Tyr Gly
410

<210> 297

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 297

gcatctgcag gagagagcga aggg 24

<210> 298

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 298
catcgttccc gtgaatccag aggc 24

<210> 299
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 299
gaaggggaggc cttccttca gtggacccgg gtcaagaata cccac 45

<210> 300
<211> 1869
<212> DNA
<213> Homo sapiens

<400> 300
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ccagtagtgg atgtgacagc aggcaagagga gcacttagca gcttattcag 100
tgtccgattc tgattccggc aaggatccaa gcatggaatg ctgccgtcgg 150
gcaactcctg gcacactgct cctcttctg gcttcctgc tcctgagttc 200
caggaccgca cgctccgagg aggaccggga cggcctatgg gatgcctggg 250
gcccatggag tgaatgctca cgcacactgct ggggaggggc ctcctactct 300
ctgaggcgct gcctgagcag caagagctgt gaaggaagaa atatccgata 350
cagaacatgc agtaatgtgg actgcccacc agaagcaggt gattccgag 400
ctcagcaatg ctcagctcat aatgatgtca agcaccatgg ccagtttat 450
gaatggcttc ctgtgtctaa tgaccctgac aacccatgtt cactcaagt 500
ccaagccaaa ggaacaaccc tgggtgttg actagcacct aaggtcttag 550
atggtacgct ttgctataca gaatctttgg atatgtgcatt cagtggttt 600
tgccaaattt tggctgcga tcaccagctg ggaagcaccc tcaaggaaga 650
taactgtggg gtctgcaacg gagatgggtc cacctgccgg ctggccgag 700
ggcagttataa atcccagctc tccgcaacca aatcggtatga tactgtggtt 750
gcacttccct atggaagtag acatattcgc cttgtcttaa aaggtcctga 800
tcacttataat ctggaaacca aaaccctcca ggggactaaa ggtgaaaaca 850
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cagaaaatttc cagacaaaga gatactgaga atggctggac cactcacagc 950
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agttcatctt ctatcaaccc atcatccacc gatggaggga gacggatttc 1050
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gtttaaagaa agcagtgtct cactgggtgt agcttcatg gttctgaac 1800
taagtgtaat catctcacca aagcttttg gctctcaaataa taaagattga 1850
tttagttcaa aaaaaaaaaa 1869

<210> 301
<211> 525
<212> PRT
<213> Homo sapiens

<400> 301
Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Leu Phe
1 5 10 15
Leu Ala Phe Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu
20 25 30
Asp Arg Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys
35 40 45
Ser Arg Thr Cys Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys
50 55 60

Leu Ser Ser Lys Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr
 65 70 75
 Cys Ser Asn Val Asp Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala
 80 85 90
 Gln Gln Cys Ser Ala His Asn Asp Val Lys His His Gly Gln Phe
 95 100 105
 Tyr Glu Trp Leu Pro Val Ser Asn Asp Pro Asp Asn Pro Cys Ser
 110 115 120
 Leu Lys Cys Gln Ala Lys Gly Thr Thr Leu Val Val Glu Leu Ala
 125 130 135
 Pro Lys Val Leu Asp Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp
 140 145 150
 Met Cys Ile Ser Gly Leu Cys Gln Ile Val Gly Cys Asp His Gln
 155 160 165
 Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly Val Cys Asn Gly
 170 175 180
 Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr Lys Ser Gln
 185 190 195
 Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Leu Pro Tyr
 200 205 210
 Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His Leu
 215 220 225
 Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser
 230 235 240
 Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Val Asp
 245 250 255
 Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala Gly Pro
 260 265 270
 Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser Ala
 275 280 285
 Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
 290 295 300
 Trp Arg Glu Thr Asp Phe Pro Cys Ser Ala Thr Cys Gly Gly
 305 310 315
 Gly Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn
 320 325 330
 Arg Val Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile
 335 340 345
 Lys Pro Lys Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro

350	355	360
Ala Ser Asp Gly Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His		
365	370	375
Pro Leu Pro Arg Trp Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser		
380	385	390
Ser Cys Gly Gly Ile Gln Ser Arg Ala Val Ser Cys Val Glu		
395	400	405
Glu Asp Ile Gln Gly His Val Thr Ser Val Glu Glu Trp Lys Cys		
410	415	420
Met Tyr Thr Pro Lys Met Pro Ile Ala Gln Pro Cys Asn Ile Phe		
425	430	435
Asp Cys Pro Lys Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr Val		
440	445	450
Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp		
455	460	465
His Arg Gly Met His Thr Gly Gly Cys Ser Pro Lys Thr Lys Pro		
470	475	480
His Ile Lys Glu Glu Cys Ile Val Pro Thr Pro Cys Tyr Lys Pro		
485	490	495
Lys Glu Lys Leu Pro Val Glu Ala Lys Leu Pro Trp Phe Lys Gln		
500	505	510
Ala Gln Glu Leu Glu Glu Gly Ala Ala Val Ser Glu Glu Pro Ser		
515	520	525

<210> 302
 <211> 1533
 <212> DNA
 <213> Homo sapiens

<400> 302
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 ctgggcgggg cgctgtggct ggcggccgc cggttcgtgg ggcccagggt 150
 ccagcggctg cgcagaggcg gggaccccg cctcatgcac gggaaagactg 200
 tgctgatcac cggggcgaac agcggcctgg gccgcgccac ggccgcccag 250
 ctactgcgcc tgggagcgcg ggtgatcatg ggctgccggg accgcgcgcg 300
 cgccgaggag gcggcggtc agctccgcg ctagctccgc caggccgcgg 350
 agtgcggccc agagcctggc gtcagcgaaa tggcgagct catagtccgg 400
 gagctggacc tcgcctcgct ggcgcgtgc cgcccttct gccaggaaat 450

gctccaggaa gagcctaggc tggatgtctt gatcaataac gcagggatct 500
tccagtcccc ttacatgaag actgaagatg ggtttgagat gcagttcgga 550
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caaaaagttca gctcccagca ggattgtggt agtttcttcc aaactttata 650
aatacggaga catcaatttt gatgacttga acagtgaaca aagctataat 700
aaaagctttt gttatagccg gagcaaactg gctaacattc tttttaccag 750
ggaactagcc cggcgcttag aaggcacaaa tgtcaccgtc aatgtgtgc 800
atcctggtat tgtacggaca aatctgggg agcacataca cattccactg 850
ttggtcaaac cactcttcaa tttggtgtca tgggctttt tcaaaactcc 900
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cccaaagcta tggatgaatc tggtcaaga aaactctggg atatcagtga 1050
agtgatggtt ggcctgctaa aataggaaca aggagtaaaa gagctgtta 1100
taaaaactgca tatcagttat atctgtgatc aggaatggtg tggattgaga 1150
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gaatttcagc aaagatgttt taaatatata tagtaagtat aatgaataat 1300
aagtacaatg aaaaatacaa ttatattgtt aaattataac tggcaagca 1350
tggatgacat attaatattt gtcagaatta agtgactcaa agtgctatcg 1400
agagggtttt caagtatctt tgagttcat ggccaaagtg ttaacttagtt 1450
ttactacaat gtttgggttt tgtgtggaaa ttatctgcct ggtgtgtca 1500
cacaagtctt acttggaaa aatttactgg tac 1533

<210> 303

<211> 336

<212> PRT

<213> Homo sapiens

<400> 303

Met Ala Val Ala Thr Ala Ala Ala Val Leu Ala Ala Leu Gly Gly
1 5 10 15

Ala Leu Trp Leu Ala Ala Arg Arg Phe Val Gly Pro Arg Val Gln
20 25 30

Arg Leu Arg Arg Gly Gly Asp Pro Gly Leu Met His Gly Lys Thr
35 40 45

Val Leu Ile Thr Gly Ala Asn Ser Gly Leu Gly Arg Ala Thr Ala
 50 55 60
 Ala Glu Leu Leu Arg Leu Gly Ala Arg Val Ile Met Gly Cys Arg
 65 70 75
 Asp Arg Ala Arg Ala Glu Glu Ala Ala Gly Gln Leu Arg Arg Glu
 80 85 90
 Leu Arg Gln Ala Ala Glu Cys Gly Pro Glu Pro Gly Val Ser Gly
 95 100 105
 Val Gly Glu Leu Ile Val Arg Glu Leu Asp Leu Ala Ser Leu Arg
 110 115 120
 Ser Val Arg Ala Phe Cys Gln Glu Met Leu Gln Glu Glu Pro Arg
 125 130 135
 Leu Asp Val Leu Ile Asn Asn Ala Gly Ile Phe Gln Cys Pro Tyr
 140 145 150
 Met Lys Thr Glu Asp Gly Phe Glu Met Gln Phe Gly Val Asn His
 155 160 165
 Leu Gly His Phe Leu Leu Thr Asn Leu Leu Gly Leu Leu Lys
 170 175 180
 Ser Ser Ala Pro Ser Arg Ile Val Val Val Ser Ser Lys Leu Tyr
 185 190 195
 Lys Tyr Gly Asp Ile Asn Phe Asp Asp Leu Asn Ser Glu Gln Ser
 200 205 210
 Tyr Asn Lys Ser Phe Cys Tyr Ser Arg Ser Lys Leu Ala Asn Ile
 215 220 225
 Leu Phe Thr Arg Glu Leu Ala Arg Arg Leu Glu Gly Thr Asn Val
 230 235 240
 Thr Val Asn Val Leu His Pro Gly Ile Val Arg Thr Asn Leu Gly
 245 250 255
 Arg His Ile His Ile Pro Leu Leu Val Lys Pro Leu Phe Asn Leu
 260 265 270
 Val Ser Trp Ala Phe Phe Lys Thr Pro Val Glu Gly Ala Gln Thr
 275 280 285
 Ser Ile Tyr Leu Ala Ser Ser Pro Glu Val Glu Gly Val Ser Gly
 290 295 300
 Arg Tyr Phe Gly Asp Cys Lys Glu Glu Leu Leu Pro Lys Ala
 305 310 315
 Met Asp Glu Ser Val Ala Arg Lys Leu Trp Asp Ile Ser Glu Val
 320 325 330
 Met Val Gly Leu Leu Lys

<210> 304
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 20, 34, 62, 87, 221, 229
<223> unknown base

<400> 304
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gcaagaaaaat tntggatata cagtgaagtg atggttngcc tgctaaaata 100
ggaacaagga gtaaaagagc tgtttataaa actgcataatc agttatatct 150
gtgatcagga atggtgtgga ttgagaactt gttacttgaa gaaaaagaat 200
tttgatattg gaatagcctg ntaagaggna catgtggta ttttggagtt 250
actgaaaaat tattttggg ataagagaat ttcagcaaag atgtttaaa 300
tatataatgt aagtataatg aataataagt acaatgaaaa atacaattat 350
. attgtaaaat tataactggg caagcatgga tgacatatta atatttgca 400
gaattaagtg actcaaagtg ctatcgagag gttttcaag tatcttgag 450
tttcatggcc aaagtgttaa ctagtttac tacaatgtt ggtgtttgtg 500
tggaaattat ctgcctggct t 521

<210> 305
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 305
ccagggaaatg ctccaggaag agcc 24

<210> 306
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 306
ccccatgaca ccaaattgaa gagtgg 26

<210> 307

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 307
aacgcaggga tcttccagtg cccttacatg aagactgaag atggg 45

<210> 308
<211> 1523
<212> DNA
<213> Homo sapiens

<400> 308
gagaggacga ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 50
cgagccccag cccttccta acccaaccca acctagccca gtcccagccg 100
ccagcgcctg tccctgtcac ggaccccagc gttaccatgc atcctgccgt 150
cttcctatcc ttacccgacc tcagatgctc ccttctgctc ctggtaactt 200
gggttttac tcctgtaaca actgaaataa caagtcttgc tacagagaat 250
atagatgaaa ttttaaaca tgctgatgtt gcttttagtaa atttttatgc 300
tgactggtgt cgtttcagtc agatgttgc tccaattttt gaggaagctt 350
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgttgcc 400
agagttgatt gtgatcagca ctctgacata gcccagagat acaggataag 450
caaataaccca accctcaaat tgttcgtaa tgggatgatg atgaagagag 500
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggcaa 550
caaaaaagtg accccattca agaaattcgg gacttagcag aaatcaccac 600
tcttgatcgc agcaaaagaa atatcattgg atatttgag caaaaggact 650
cgacacaacta tagagttttt gaacgagtag cgaatatttt gcatgatgac 700
tgtgccttc tttctgcatt tgggatgtt tcaaaaccgg aaagatata 750
tggcgacaac ataatctaca aaccaccagg gcattctgct ccggatatgg 800
tgtacttggg agctatgaca aattttgatg tgacttacaa ttggattcaa 850
gataaatgtg ttcctcttgc ccgagaaaata acatggaaa atggagagga 900
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agtgaaaaag gtacaataaa cttttacat gccgattgtg acaaatttag 1050

acatccctttt ctgcacatac agaaaactcc agcagattgt cctgtaatcg 1100
ctattgacag ctttaggcat atgtatgtgt ttggagactt caaagatgta 1150
ttaattcctg gaaaactcaa gcaattcgta tttgacttac attctggaaa 1200
actgcacaga gaattccatc atggacctga cccaaactgat acagccccag 1250
gagagcaagc ccaagatgta gcaaggagtc cacctgagag ctccttccag 1300
aaactagcac ccagtgaata taggtatact ctattgaggg atcgagatga 1350
gctttaaaaa cttgaaaaac agtttgtaag ccttcaaca gcagcatcaa 1400
cctacgtggt ggaaatagta aacctatatt ttcataattc tatgtgtatt 1450
tttattttga ataaacagaa agaaatttaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa aaaaaaaaaa aaa 1523

<210> 309
<211> 406
<212> PRT
<213> Homo sapiens

<400> 309
Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser
1 5 10 15
Leu Leu Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu
20 25 30
Ile Thr Ser Leu Ala Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn
35 40 45
Ala Asp Val Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe
50 55 60
Ser Gln Met Leu His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile
65 70 75
Lys Glu Glu Phe Pro Asn Glu Asn Gln Val Val Phe Ala Arg Val
80 85 90
Asp Cys Asp Gln His Ser Asp Ile Ala Gln Arg Tyr Arg Ile Ser
95 100 105
Lys Tyr Pro Thr Leu Lys Leu Phe Arg Asn Gly Met Met Met Lys
110 115 120
Arg Glu Tyr Arg Gly Gln Arg Ser Val Lys Ala Leu Ala Asp Tyr
125 130 135
Ile Arg Gln Gln Lys Ser Asp Pro Ile Gln Glu Ile Arg Asp Leu
140 145 150
Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys Arg Asn Ile Ile Gly
155 160 165

Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg Val Phe Glu Arg
170 175 180

Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu Ser Ala Phe
185 190 195

Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn Ile Ile
200 205 210

Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu Gly
215 220 225

Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys
230 235 240

Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu
245 250 255

Leu Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys
260 265 270

Glu Asp Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg
275 280 285

Gln Leu Ile Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp
290 295 300

Cys Asp Lys Phe Arg His Pro Leu Leu His Ile Gln Lys Thr Pro
305 310 315

Ala Asp Cys Pro Val Ile Ala Ile Asp Ser Phe Arg His Met Tyr
320 325 330

Val Phe Gly Asp Phe Lys Asp Val Leu Ile Pro Gly Lys Leu Lys
335 340 345

Gln Phe Val Phe Asp Leu His Ser Gly Lys Leu His Arg Glu Phe
350 355 360

His His Gly Pro Asp Pro Thr Asp Thr Ala Pro Gly Glu Gln Ala
365 370 375

Gln Asp Val Ala Ser Ser Pro Pro Glu Ser Ser Phe Gln Lys Leu
380 385 390

Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu Arg Asp Arg Asp Glu
395 400 405

Leu

<210> 310
<211> 182
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> 36, 48
<223> unknown base

<400> 310
attaaggaag aatttccaaa tgaaaatcaa gtagtnnnccagatnng 50
ttgtgatcactctgaca tagcccagag atacaggata agcaaatacc 100
caaccctcaa attgttcgt aatggatga tcatgaagag agaatacagg 150
ggtcagcgat cagtgaaagc attggcagat ta 182

<210> 311
<211> 598
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 38, 59, 140, 169, 174, 183, 282-283, 294-295, 319, 396
<223> unknown base

<400> 311
agaggcctct ctggaagtttgc tcccggtgt tcggccgcngg agcccggtc 50
gagaggacna ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 100
cgagccccag cccttccta acccaaccca acctagccn gtcccagccg 150
ccagcgcctg tccctgtcnc ggccccagc gtnaccatgc atcctgccgt 200
cttcctatcc ttacccgacc tcagatgctc cttctgtctc ctggtaactt 250
gggtttttac tcctgtaaaca actgaaataa cnngtcttga tacnnagaat 300
atagatgaaa ttttaaacna tgctgatgtg gcttttagtca attttatgc 350
tgactggtgt cgtttcagtc agatgtggca tccaaatttt gaggangctt 400
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 450
agagttgatt gtgatcagca ctctgacata gcccagagat acaggataag 500
caaataccca accctcaaattt tgttcgtaa tggatgtatg atgaagagag 550
aatacagggg tcagcgatca gtgaaagcat tggcagatcatcaggc 598

<210> 312
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
tgagaggcct ctctggaagt tg 22

<210> 313
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 313
gtcagcgatc agtgaaagc 19

<210> 314
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 314
ccagaatgaa gtagctcgcc 20

<210> 315
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 315
ccgactcaaa atgcattgtc 20

<210> 316
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 316
catttggcag gaattgtcc 19

<210> 317
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 317
ggtgctata gccaagg 18

<210> 318
<211> 24
<212> DNA

<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide probe
<400> 318
ctgtatctct gggctatgtc agag 24

<210> 319
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 319
ctacatataa tggcacatgt cagcc 25

<210> 320
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe
<400> 320
cgtcttccta tccttacccg acctcagatg ctcccttctg ctcctg 46

<210> 321
<211> 1333
<212> DNA
<213> Homo sapiens

<400> 321
gcccacgcgt ccgatggcgt tcacgttcgc ggccttctgc tacatgctgg 50
cgctgctgct cactgccgca ctcatcttct tcgcccatttg gcacattata 100
gcatttgatg agctgaagac tgattacaag aatcctatacg accagtgtaa 150
taccctgaat ccccttgtac tcccagagta cctcatccac gcttcttct 200
gtgtcatgtt tctttgtgca gcagagtggc ttacactggg tctcaatatg 250
ccccttgg catatcatat ttggaggtat atgagtagac cagtgtatgag 300
tggcccagga ctctatgacc ctacaaccat catgaatgca gatattctag 350
catattgtca gaaggaagga tggtgcaaat tagctttta tcttctagca 400
ttttttact acctatatgg catgatctat gtttggtga gctcttagaa 450
caacacacag aagaatttgtt ccagtaagt gcatgcaaaa agccaccaaa 500
tgaaggatt ctatccagca agatcctgtc caagagtagc ctgtggaatc 550

tgatcagttt ctttaaaaaa tgactcctta ttttttaaat gttccacat 600
tttgcttgtt ggaaagactg ttttcatatg ttatactcag ataaagattt 650
taaatggtat tacgtataaa ttaatataaa atgattacct ctggtgttga 700
caggtttgc aa cttgcacttc ttaaggaaca gccataatcc tctgaatgat 750
gcattaatta ctgactgtcc tagtacattt gaagctttt tttataggaa 800
ctttagggc tcatttttgtt ttcattgaaa cagtatctaa ttataaattt 850
gctgttagata tcaggtgctt ctgatgaagt gaaaatgtat atctgactag 900
tgggaaactt catgggttcc ctcatctgtc atgtcgatga ttatatatgg 950
atacatttac aaaaataaaaa agcgggaatt ttcccttcgc ttgaatattt 1000
tccctgtata ttgcatgaat gagagatttc ccattttcc atcagagttt 1050
taaatataact tgcttaattt cttaagcata agtaaacatg atataaaaaat 1100
atatgctgaa ttacttgcgtt agaatgcatt taaagctatt tttaatgtgt 1150
ttttattttgtt aagacattttc ttatataagaa attggttattt atgcttactg 1200
ttctaatctg gtggtaaagg tattcttaag aatttgcagg tactacagat 1250
tttcaaaaactt gaatgagaga aaattgtata accatcctgc tgttccttta 1300
gtgcaatacataaaaaactctt gaaatataaga ctc 1333

<210> 322

<211> 144

<212> PRT

<213> Homo sapiens

<400> 322

Met Ala Phe Thr Phe Ala Ala Phe Cys Tyr Met Leu Ala Leu Leu
1 5 10 15

Leu Thr Ala Ala Leu Ile Phe Phe Ala Ile Trp His Ile Ile Ala
20 25 30

Phe Asp Glu Leu Lys Thr Asp Tyr Lys Asn Pro Ile Asp Gln Cys
35 40 45

Asn Thr Leu Asn Pro Leu Val Leu Pro Glu Tyr Leu Ile His Ala
50 55 60

Phe Phe Cys Val Met Phe Leu Cys Ala Ala Glu Trp Leu Thr Leu
65 70 75

Gly Leu Asn Met Pro Leu Leu Ala Tyr His Ile Trp Arg Tyr Met
80 85 90

Ser Arg Pro Val Met Ser Gly Pro Gly Leu Tyr Asp Pro Thr Thr
95 100 105

Ile Met Asn Ala Asp Ile Leu Ala Tyr Cys Gln Lys Glu Gly Trp
110 115 120

Cys Lys Leu Ala Phe Tyr Leu Leu Ala Phe Phe Tyr Tyr Leu Tyr
125 130 135

Gly Met Ile Tyr Val Leu Val Ser Ser
140

<210> 323

<211> 477

<212> DNA

<213> Homo sapiens

<400> 323

attatacgat ttgatgagct gaagactgat tacaagatcc tatagaccag 50

tgttaataccc tgaatcccct tgtactccca gagtacctca tccacgctt 100

cttctgtgtc atgtttcttt gtgcagcaga gtggcttaca ctgggtctca 150

atatgcccct cttggcatat catatttggg ggtatatgag tagaccagt 200

atgagtggtcc caggactcta tgaccctaca accatcatga atgcagat 250

tcttagcatat tgtcagaagg aaggatggtg caaatttagt ttttatcttc 300

tagcattttt ttactaccta tatggcatga tctatgtttt ggtgagctct 350

tagaacaaca cacagaagaa ttggtccagt taagtgcattt caaaaagcca 400

ccaaatgaag ggattctatc cagcaagatc ctgtccaaga gtagcctgtg 450

gaatctgatc agttacttta aaaaatg 477

<210> 324

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 324

tgtaaaacga cggccagttt aatagacctg caatttattaa tct 43

<210> 325

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 325

cagggaaacag ctatgaccac ctgcacaccc gcaaattccat t 41

<210> 326

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 326
gtgcagcaga gtggcttaca 20

<210> 327
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 327
actggaccaa ttcttctgtg 20

<210> 328
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 328
gatattcttag catattgtca gaaggaagga tggtgcaa at tagct 45

<210> 329
<211> 1174
<212> DNA
<213> Homo sapiens

<400> 329
cgAACGCGTG ggggaaaccc ttccgagaaa acagcaacaa gctgagctgc 50
tgtgacagag gggacaacaaga tggcggcgcc gaaggggagc ctctgggtga 100
ggaccctaact ggggctcccg ccgctgctgc tgctgaccat ggccttggcc 150
ggagggttcgg ggaccgcttc ggctgaagca tttgactcgg tcttgggtga 200
tacggcgtct tgccaccggg cctgtcagtt gacacctaccc ttgcacacac 250
accctaagga agaggagttg tacgcatgtc agagaggtt caggctgttt 300
tcaatttgtc agtttgtgga tcatggatt gacttaatc gaactaaatt 350
ggaatgtgaa tctgcatgta cagaagcata ttcccaatct gatgagcaat 400
atgcttgcca tcttgggtgc cagaatcagc tgccattcgc tgaactgaga 450
caagaacaac ttatgtccct gatgccaaaa atgcacacac tctttcctct 500

aactctggtg aggtcattct ggagtgacat gatggactcc gcacagagct 550
tcataacctc ttcatggact ttttatcttc aagccgatga cgaaaaata 600
gttatattcc agtctaagcc agaaatccag tacgcaccac atttgagca 650
ggagcctaca aatttgagag aatcatctct aagcaaaatg tcctatctgc 700
aaatgagaaa ttcacaagcg cacaggaatt ttcttgaaga tggagaaagt 750
gatggcttt taagatgcct ctctcttaac tctgggtgga ttttaactac 800
aactcttgcc ctctcggtga tggtattgct ttggatttgt tgtgcaactg 850
ttgctacagc tgtggagcag tatgtccct ctgagaagct gagtatctat 900
ggtgacttgg agtttatgaa tgaacaaaag ctaaacagat atccagcttc 950
ttctcttggtg gttgttagat ctaaaactga agatcatgaa gaagcaggc 1000
ctctacctac aaaagtgaat cttgctcatt ctgaaattta agcatttttc 1050
ttttaaaaga caagtgtaat agacatctaa aattccactc ctcatagagc 1100
ttttaaaatg gtttcattgg atataggcct taagaaatca ctataaaatg 1150
caaataaaagt tactcaaatc tgtg 1174

<210> 330

<211> 323

<212> PRT

<213> Homo sapiens

<400> 330

Met	Ala	Ala	Pro	Lys	Gly	Ser	Leu	Trp	Val	Arg	Thr	Gln	Leu	Gly
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Leu	Pro	Pro	Leu	Leu	Leu	Leu	Thr	Met	Ala	Leu	Ala	Gly	Gly	Ser
							20			25			30	
Gly	Thr	Ala	Ser	Ala	Glu	Ala	Phe	Asp	Ser	Val	Leu	Gly	Asp	Thr
					35				40				45	
Ala	Ser	Cys	His	Arg	Ala	Cys	Gln	Leu	Thr	Tyr	Pro	Leu	His	Thr
					50				55				60	
Tyr	Pro	Lys	Glu	Glu	Glu	Leu	Tyr	Ala	Cys	Gln	Arg	Gly	Cys	Arg
					65				70				75	
Leu	Phe	Ser	Ile	Cys	Gln	Phe	Val	Asp	Asp	Gly	Ile	Asp	Leu	Asn
					80				85				90	
Arg	Thr	Lys	Leu	Glu	Cys	Glu	Ser	Ala	Cys	Thr	Glu	Ala	Tyr	Ser
					95				100				105	
Gln	Ser	Asp	Glu	Gln	Tyr	Ala	Cys	His	Leu	Gly	Cys	Gln	Asn	Gln
					110				115				120	

Leu Pro Phe Ala Glu Leu Arg Gln Glu Gln Leu Met Ser Leu Met
125 130 135
Pro Lys Met His Leu Leu Phe Pro Leu Thr Leu Val Arg Ser Phe
140 145 150
Trp Ser Asp Met Met Asp Ser Ala Gln Ser Phe Ile Thr Ser Ser
155 160 165
Trp Thr Phe Tyr Leu Gln Ala Asp Asp Gly Lys Ile Val Ile Phe
170 175 180
Gln Ser Lys Pro Glu Ile Gln Tyr Ala Pro His Leu Glu Gln Glu
185 190 195
Pro Thr Asn Leu Arg Glu Ser Ser Leu Ser Lys Met Ser Tyr Leu
200 205 210
Gln Met Arg Asn Ser Gln Ala His Arg Asn Phe Leu Glu Asp Gly
215 220 225
Glu Ser Asp Gly Phe Leu Arg Cys Leu Ser Leu Asn Ser Gly Trp
230 235 240
Ile Leu Thr Thr Thr Leu Val Leu Ser Val Met Val Leu Leu Trp
245 250 255
Ile Cys Cys Ala Thr Val Ala Thr Ala Val Glu Gln Tyr Val Pro
260 265 270
Ser Glu Lys Leu Ser Ile Tyr Gly Asp Leu Glu Phe Met Asn Glu
275 280 285
Gln Lys Leu Asn Arg Tyr Pro Ala Ser Ser Leu Val Val Val Arg
290 295 300
Ser Lys Thr Glu Asp His Glu Glu Ala Gly Pro Leu Pro Thr Lys
305 310 315
Val Asn Leu Ala His Ser Glu Ile
320

<210> 331
<211> 350
<212> DNA
<213> Homo sapiens

<400> 331
ttgggtgata cggcgtcttg ccaccgggcc tgtcagttga cctacccctt 50
gcacacacctac cctaaggaag aggagttgta cgcatgtcag agaggttgca 100
ggctgttttc aatttgtcag tttgtggatg atggaattga cttaaatcga 150
actaaattgg aatgtgaatc tgcatgtaca gaagcatatt cccaatctga 200
ttagcaatat gcttgccatc ttgggtgccca gaatcagctg ccattcgctg 250

aactgagaca agaacaacctt atgtccctga tgccaaaaat gcacctaactc 300
tttcctctaa ctctggtag gtcattctgg agtgacatga tggactccgc 350
<210> 332
<211> 562
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 47
<223> unknown base

<400> 332
cacactggcc ggatctttta gagtccttg accttgcacca agggtcngga 50
aaacagcaac aagctgagct gctgtgacag aggaaacaag atggcggcgc 100
cgaagggagc ctttgggtga ggacccaact ggggctcccgg ccgcgtgc 150
tgctgaccat ggccttggcc ggaggttcgg ggaccgcttc ggctgaagca 200
tttgactcggtt tacggcgtct tgccaccggg cctgtcagtt 250
gacctacccc ttgcacaccc accctaagga agaggagttt tacgcattgtc 300
agagaggttggcaggctgttt tcaatttgc agtttgttggaa tgatggatt 350
gacttaaatc gaactaaattt ggaatgtgaa tctgcattgtc cagaagcata 400
ttcccaatct gatgagcaat atgcttgcca tcttgggtgc cagaatcagc 450
tgccattcgc tgaactgaga caagaacaac ttatgtccct gatgccaaaa 500
atgcacctac tctttcctct aactctggtag aggtcattttt ggagtgcacat 550
gatggactcc gc 562

<210> 333
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 333
acaagctgag ctgctgtgac ag 22

<210> 334
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 334
tgattctggc aaccaagatg gc 22

<210> 335
<211> 40
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 335
atggccttgg ccggagggttc ggggaccgct tcggctgaag 40

<210> 336
<211> 1885
<212> DNA
<213> Homo sapiens

<400> 336
gcgagggtggc gatcgctgag aggcaggagg gccgaggcg 50
ccggccggag gtggggcgcc gctggggccg gcccgcacgg gcttcatctg 100
aggggcgcacg gcccgcgacc gagcgtgcgg actggcctcc caagcgtggg 150
gcgacaagct gccggagctg caatgggccc cggctgggaa ttcttgtttg 200
gcctccctggg cgccgtgtgg ctgctcagct cgggccacgg agaggagcag 250
ccccccggaga cagcggcaca gaggtgcttc tgccaggtta gtggttactt 300
ggatgattgt acctgtgatg ttgaaaccat tgatagatt aataactaca 350
ggctttcccc aagactacaa aaacttcttg aaagtgacta ctttaggtat 400
tacaaggtaa acctgaagag gccgtgtcct ttctggaatg acatcagcca 450
gtgtggaaga agggactgtg ctgtcaaacc atgtcaatct gatgaagttc 500
ctgatggaat taaatctgcg agctacaagt attctgaaga agccaataat 550
ctcattgaag aatgtgaaca agctgaacga cttggagcag tggatgaatc 600
tctgagtgag gaaacacaga aggctgttct tcagtggacc aagcatgatg 650
attcttcaga taacttctgt gaagctgatg acattcagtc ccctgaagct 700
gaatatgttag atttgcttct taatcctgag cgctacactg gttacaaggg 750
accagatgct tggaaaatat ggaatgtcat ctacgaagaa aactgtttta 800
agccacagac aattaaaaga cctttaaatc ctttggcttc tggtcaaggg 850
acaagtgaag agaacacttt ttacagttgg ctagaaggtc tctgtgtaga 900
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tagaactaag ggcttatcc aaagtgttac cattcttcga gcgcggcagat 1150
tttcaactct ttactggaaa taaaattcag gatgaggaaa acaaaatgtt 1200
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agaattcatt tttgctggg gataaaaaaag aagcacacaa actaaaggag 1300
gactttcgac tgcattttag aaatatttca agaattatgg attgtgttgg 1350
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ctgctctgaa gatcttattt tctgagaaat tgatagcaaa tatGCCAGAA 1450
agtggaccta gttatgaatt ccatctaacc agacaagaaa tagtattcatt 1500
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ctgtttctgg acaatggagg cgaaagagtg gaatttcatt caaaggcata 1650
atagcaatga cagtcttaag ccaaacattt tatataaagt tgctttgtta 1700
aaggagaatt atattgtttt aagtaaacac atttttaaaa attgtgttaa 1750
gtctatgtat aatactactg tgagtaaaag taatacttta ataatgtggt 1800
acaaatttta aagtttaata ttgaataaaa ggaggattat caaatttaaaa 1850
aaaaaaaaaaa aaaaaaaaaaa aaaaaaaaaaa aaaaa 1885

<210> 337

<211> 468

<212> PRT

<213> Homo sapiens

<400> 337

Met Gly Arg Gly Trp Gly Phe Leu Phe Gly Leu Leu Gly Ala Val
1 5 10 15

Trp Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr
20 25 30

Ala Ala Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp
35 40 45

Cys Thr Cys Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg
50 55 60

Leu Phe Pro Arg Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg
65 70 75

Tyr Tyr Lys Val Asn Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp
 80 85 90

Ile Ser Gln Cys Gly Arg Arg Asp Cys Ala Val Lys Pro Cys Gln
 95 100 105

Ser Asp Glu Val Pro Asp Gly Ile Lys Ser Ala Ser Tyr Lys Tyr
 110 115 120

Ser Glu Glu Ala Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala Glu
 125 130 135

Arg Leu Gly Ala Val Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys
 140 145 150

Ala Val Leu Gln Trp Thr Lys His Asp Asp Ser Ser Asp Asn Phe
 155 160 165

Cys Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala Glu Tyr Val Asp
 170 175 180

Leu Leu Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys Gly Pro Asp
 185 190 195

Ala Trp Lys Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys Phe Lys
 200 205 210

Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly Gln
 215 220 225

Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu
 230 235 240

Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser Gly Leu His
 245 250 255

Ala Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu Gln Glu
 260 265 270

Thr Trp Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe Gln
 275 280 285

Gln Arg Phe Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg
 290 295 300

Leu Lys Asn Leu Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu
 305 310 315

Ser Lys Val Leu Pro Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe
 320 325 330

Thr Gly Asn Lys Ile Gln Asp Glu Glu Asn Lys Met Leu Leu Leu
 335 340 345

Glu Ile Leu His Glu Ile Lys Ser Phe Pro Leu His Phe Asp Glu
 350 355 360

Asn Ser Phe Phe Ala Gly Asp Lys Lys Glu Ala His Lys Leu Lys

365	370	375
Glu Asp Phe Arg Leu His Phe Arg Asn Ile Ser Arg Ile Met Asp		
380	385	390
Cys Val Gly Cys Phe Lys Cys Arg Leu Trp Gly Lys Leu Gln Thr		
395	400	405
Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe Ser Glu Lys Leu		
410	415	420
Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu Phe His Leu		
425	430	435
Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly Arg Ile		
440	445	450
Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu Gln		
455	460	465

Asn Ile His

<210> 338
<211> 507
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 101, 263, 376, 397, 426
<223> unknown base

<400> 338
gctggaaaata tggatgtcat ctacgagaaa ctgttttaag ccacagacaa 50
ttaaaaagacc tttaaatcct ttggcttctg gtcaaggac aagtgaagag 100
nacactttt acagttggct agaaggtctc tgtgttagaaa aaagagcatt 150
ctacagactt atatctggcc tacatgcaag cattaatgtg catttgagtg 200
caagatatct tttacaagag acctggtagg aaaagaaatg gggacacaaac 250
attacagaat ttnaacagcg atttgatgga attttgactg aaggagaagg 300
tccaagaagg cttaagaact tgtatttct ctacttaata gaactaaggg 350
ctttatccaa agtgttacca ttctngagc gcccagattt tcaactnttt 400
actggaaaata aaattcagga tgaggnaaac aaaatgttac ttttggaaat 450
acttcatgaa atcaagtcat ttcccttgca ttttgatgag aattcatttt 500
tttgctg 507

<210> 339
<211> 20

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 339
aagctgccgg agctgcaatg 20

<210> 340
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 340
ttgcttctta atcctgagcg c 21

<210> 341
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 341
aaaggaggac tttcgactgc 20

<210> 342
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 342
agagattcat ccactgctcc aagtgc 26

<210> 343
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 343
tgtccagaaa cagggcacata tcagc 25

<210> 344
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonu

<400> 344
agacagcggc acagagggtgc

<210> 345
<211> 1486
<212> DNA
<213> Homo sapiens

<400> 345
cgAACGCGTG ggcggacgCG

gatgggaggg aaagtgaaga
ggacttctca tactggacag
cactcacctg ttcttgcccc
ttaacctgga tgaacatcac
gaatttggat acagtgtctt
gctgggtggc gccccctggg
tttatcgctg ccctgttaggg
cacttaggtg actaccaaact
gcacacctggg atgtctctgt
tgagctaagg agagggtggt
aaagagaagt gtggtaaggg
taaaaaaccct agaaaaggaaa

gcctccttca actgggagca t
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gcctggcaca gtaactcatg cctgtaatcc caacatttg ggaggccaac 1400
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agaaaagaccc catctctaaa taaatgtttt aaaaat 1486

<210> 346

<211> 124

<212> PRT

<213> Homo sapiens

<400> 346

Met Glu Leu Pro Phe Val Thr His Leu Phe Leu Pro Leu Val Phe
1 5 10 15

Leu Thr Gly Leu Cys Ser Pro Phe Asn Leu Asp Glu His His Pro
20 25 30

Arg Leu Phe Pro Gly Pro Pro Glu Ala Glu Phe Gly Tyr Ser Val
35 40 45

Leu Gln His Val Gly Gly Gln Arg Trp Met Leu Val Gly Ala
50 55 60

Pro Trp Asp Gly Pro Ser Gly Asp Arg Arg Gly Asp Val Tyr Arg
65 70 75

Cys Pro Val Gly Gly Ala His Asn Ala Pro Cys Ala Lys Gly His
80 85 90

Leu Gly Asp Tyr Gln Leu Gly Asn Ser Ser His Pro Ala Val Asn
95 100 105

Met His Leu Gly Met Ser Leu Leu Glu Thr Asp Gly Asp Gly Gly
110 115 120

Phe Met Val Ser

<210> 347

<211> 509

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 22

<223> unknown base

<400> 347

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ttgccattgg gagggggcag gatgggaggaa aaagtgaaga aaacagaaaa 100
ggagagggac agaggccaga ggacttctca tactggacag aaaccgatca 150
ggcatggaac tccccttcgt cactcacctg ttcttgcccc tggtgttcct 200
gacaggtctc tgctccccct ttaacctgga tgaacatcac ccacgcctat 250
tcccagggcc accagaagct gaatttggat acagtgtctt acaacatgtt 300
gggggtggac agcgatggat gctggtggc gccccctggg atgggccttc 350
aggcgaccgg aggggggacg tttatcgctg ccctgttaggg ggggcccaca 400
atgccccatg tgccaaggc cacttaggtg actaccaact gggaaattca 450
tctcatcctg ctgtgaatat gcacctgggg atgtcttgt tagagacaga 500
tggtgatgg 509

<210> 348
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 348
aggcacagag gccagaggac ttc 23

<210> 349
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 349
caggtgcata ttcacagcag gatg 24

<210> 350
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 350
ggaactcccc ttcgtcactc acctgttctt gccccctggtg ttctt 45

<210> 351
<211> 2056
<212> DNA

<213> Homo sapiens

<400> 351

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tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
gctttatTTT ggaaagaaac aatgttctag gtcaaactga gtctaccaaa 250
tgcagacttt cacaatggtt cttagaagaaa tctggacaag tctttcatg 300
tggTTTTCT acgcatttat tccatgttg ctcacagatg aagtggccat 350
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gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
ccccagcagc tggtgctcac tcactgaagg tcctgagtgt gatgtcactg 550
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gtaacatgtg catgtttttt gtgctcctt tttctgttgg taaagtacag 2000
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aaaaaaaa 2056

<210> 352
<211> 311
<212> PRT
<213> Homo sapiens

<400> 352
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Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp
20 25 30
Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
35 40 45
Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro
50 55 60
Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
65 70 75
Ser Leu Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser
80 85 90
Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala
95 100 105
Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
110 115 120

Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser
 125 130 135
 Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe
 140 145 150
 His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe
 155 160 165
 Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu His Val
 170 175 180
 Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr Met
 185 190 195
 Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
 200 205 210
 Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val Glu
 215 220 225
 Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
 230 235 240
 Val Gly Phe Met Leu Ile Leu Val Val Val Pro Leu Phe Val Trp
 245 250 255
 Lys Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val
 260 265 270
 Leu Pro Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys Leu Ile
 275 280 285
 Ser Cys Arg Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val Met
 290 295 300
 Ser Pro Glu Glu Leu Leu Arg Ala Trp Ile Ser
 305 310

<210> 353

<211> 864

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 654, 711, 748, 827

<223> unknown base

<400> 353

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tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150

agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200

ccaaatgcag actttcacaa tggttctaga agaaaatctgg acaagtcttt 250
tcatgtggtt tttctacgca ttgattccat gtttgctcac agatgaagtg 300
gccattctgc ctgcccctca gaacctctct gtactctcaa ccaacatgaa 350
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ggcgctgggt tgat 864

<210> 354

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 354

aggcttcgct gcgactagac ctc 23

<210> 355

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 355

ccaggtcggg taaggatggc tgag 24

<210> 356

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 356
tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50
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<211> 1670
<212> DNA
<213> Homo sapiens
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<210> 358

<211> 328

<212> PRT

<213> Homo sapiens

<400> 358

Met Gly Ala Ala Ala Arg Leu Ser Ala Pro Arg Ala Leu Val Leu
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Trp Ala Ala Leu Gly Ala Ala Ala His Ile Gly Pro Ala Pro Asp
20 25 30

Pro Glu Asp Trp Trp Ser Tyr Lys Asp Asn Leu Gln Gly Asn Phe
35 40 45

Val Pro Gly Pro Pro Phe Trp Gly Leu Val Asn Ala Ala Trp Ser
50 55 60

Leu Cys Ala Val Gly Lys Arg Gln Ser Pro Val Asp Val Glu Leu
65 70 75

Lys Arg Val Leu Tyr Asp Pro Phe Leu Pro Pro Leu Arg Leu Ser
80 85 90

Thr Gly Gly Glu Lys Leu Arg Gly Thr Leu Tyr Asn Thr Gly Arg
95 100 105

His Val Ser Phe Leu Pro Ala Pro Arg Pro Val Val Asn Val Ser
110 115 120

Gly Gly Pro Leu Leu Tyr Ser His Arg Leu Ser Glu Leu Arg Leu
125 130 135

Leu Phe Gly Ala Arg Asp Gly Ala Gly Ser Glu His Gln Ile Asn
140 145 150

His Gln Gly Phe Ser Ala Glu Val Gln Leu Ile His Phe Asn Gln
155 160 165

Glu Leu Tyr Gly Asn Phe Ser Ala Ala Ser Arg Gly Pro Asn Gly

170 175 180

Leu Ala Ile Leu Ser Leu Phe Val Asn Val Ala Ser Thr Ser Asn
185 190 195

Pro Phe Leu Ser Arg Leu Leu Asn Arg Asp Thr Ile Thr Arg Ile
200 205 210

Ser Tyr Lys Asn Asp Ala Tyr Phe Leu Gln Asp Leu Ser Leu Glu
215 220 225

Leu Leu Phe Pro Glu Ser Phe Gly Phe Ile Thr Tyr Gln Gly Ser
230 235 240

Leu Ser Thr Pro Pro Cys Ser Glu Thr Val Thr Trp Ile Leu Ile
245 250 255

Asp Arg Ala Leu Asn Ile Thr Ser Leu Gln Met His Ser Leu Arg
260 265 270

Leu Leu Ser Gln Asn Pro Pro Ser Gln Ile Phe Gln Ser Leu Ser
275 280 285

Gly Asn Ser Arg Pro Leu Gln Pro Leu Ala His Arg Ala Leu Arg
290 295 300

Gly Asn Arg Asp Pro Arg His Pro Glu Arg Arg Cys Arg Gly Pro
305 310 315

Asn Tyr Arg Leu His Val Asp Gly Val Pro His Gly Arg
320 325

<210> 359

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 359

tctgctgagg tgcagctcat tcac 24

<210> 360

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 360

gaggctctgg aagatctgag atgg 24

<210> 361

<211> 50

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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gccttttgt caacgttgcc agtacctcta acccattcct cagtcgcctc 50

<210> 362
<211> 3038
<212> DNA
<213> Homo sapiens

<400> 362
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tgcagagcag cagtacatgc tggagtgggtt cgaaatcacg gtggttatgt 1850
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taaacattaa aattaatcat gtttcaaaaa aaaaaaaaaa 3038

<210> 363

<211> 500

<212> PRT

<213> Homo sapiens

<400> 363

Met	Lys	Cys	Thr	Ala	Arg	Glu	Trp	Leu	Arg	Val	Thr	Thr	Val	Leu
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Phe	Met	Ala	Arg	Ala	Ile	Pro	Ala	Met	Val	Val	Pro	Asn	Ala	Thr
					20				25				30	
Leu	Leu	Glu	Lys	Leu	Leu	Glu	Lys	Tyr	Met	Asp	Glu	Asp	Gly	Glu
					35				40				45	
Trp	Trp	Ile	Ala	Lys	Gln	Arg	Gly	Lys	Arg	Ala	Ile	Thr	Asp	Asn
					50				55				60	
Asp	Met	Gln	Ser	Ile	Leu	Asp	Leu	His	Asn	Lys	Leu	Arg	Ser	Gln
					65				70				75	
Val	Tyr	Pro	Thr	Ala	Ser	Asn	Met	Glu	Tyr	Met	Thr	Trp	Asp	Val
					80				85				90	
Glu	Leu	Glu	Arg	Ser	Ala	Glu	Ser	Trp	Ala	Glu	Ser	Cys	Leu	Trp
					95				100				105	
Glu	His	Gly	Pro	Ala	Ser	Leu	Leu	Pro	Ser	Ile	Gly	Gln	Asn	Leu
					110				115				120	
Gly	Ala	His	Trp	Gly	Arg	Tyr	Arg	Pro	Pro	Thr	Phe	His	Val	Gln
					125				130				135	
Ser	Trp	Tyr	Asp	Glu	Val	Lys	Asp	Phe	Ser	Tyr	Pro	Tyr	Glu	His
					140				145				150	
Glu	Cys	Asn	Pro	Tyr	Cys	Pro	Phe	Arg	Cys	Ser	Gly	Pro	Val	Cys
					155				160				165	
Thr	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	Thr	Ser	Asn	Arg	Ile	Gly

170 175 180

Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp Gly Gln Ile
185 190 195

Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro Lys Gly
200 205 210

Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys Ser
215 220 225

Ala Cys Pro Pro Ser Phe Gly Gly Cys Arg Glu Asn Leu Cys
230 235 240

Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu
245 250 255

Thr Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His
260 265 270

Val Arg Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser
275 280 285

Ala Gln Gln Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg
290 295 300

Asp Gln Cys Lys Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala
305 310 315

Gly Cys Leu Asp Ser Lys Ala Lys Val Ile Gly Ser Val His Tyr
320 325 330

Glu Met Gln Ser Ser Ile Cys Arg Ala Ala Ile His Tyr Gly Ile
335 340 345

Ile Asp Asn Asp Gly Gly Trp Val Asp Ile Thr Arg Gln Gly Arg
350 355 360

Lys His Tyr Phe Ile Lys Ser Asn Arg Asn Gly Ile Gln Thr Ile
365 370 375

Gly Lys Tyr Gln Ser Ala Asn Ser Phe Thr Val Ser Lys Val Thr
380 385 390

Val Gln Ala Val Thr Cys Glu Thr Thr Val Glu Gln Leu Cys Pro
395 400 405

Phe His Lys Pro Ala Ser His Cys Pro Arg Val Tyr Cys Pro Arg
410 415 420

Asn Cys Met Gln Ala Asn Pro His Tyr Ala Arg Val Ile Gly Thr
425 430 435

Arg Val Tyr Ser Asp Leu Ser Ser Ile Cys Arg Ala Ala Val His
440 445 450

Ala Gly Val Val Arg Asn His Gly Gly Tyr Val Asp Val Met Pro
455 460 465

Val Asp Lys Arg Lys Thr Tyr Ile Ala Ser Phe Gln Asn Gly Ile
470 475 480

Phe Ser Glu Ser Leu Gln Asn Pro Pro Gly Gly Lys Ala Phe Arg
485 490 495

Val Phe Ala Val Val
500

<210> 364

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 364

ggacagaatt tgggagcaca ctgg 24

<210> 365

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 365

ccaagagtat actgtcctcg 20

<210> 366

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 366

agcacagatt ttctctacag ccccc 25

<210> 367

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 367

aaccactcca gcatgtactg ctgc 24

<210> 368

<211> 50

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 368
ccattcaggt gttctggccc tgtatgtaca cattatacac acgtcggtg 50

<210> 369
<211> 1685
<212> DNA
<213> Homo sapiens

<400> 369
gcggagacaa gcgcagagcg cagcgcacgg ccacagacag ccctggcat 50
ccaccgacgg cgcaagccgga gccagcagag ccggaaggcg cgccccggc 100
agagaaaagcc gagcagagct gggtggcgtc tccgggcccgc cgctccgacg 150
ggccagcgcc ctccccatgt ccctgctccc acgcccgcgc cctccggta 200
gcatgaggct cctggcggcc ggcgtgctcc tgctgctgct ggcgtgtac 250
accgcgcgtg tggacgggtc caaatgcaag tgctccggaa agggacccaa 300
gatccgctac agcgacgtga agaagctgga aatgaagcca aagtacccgc 350
actgcgagga gaagatggtt atcatcacca ccaagagcgt gtccaggtac 400
cgaggtcagg agcactgcct gcaccccaag ctgcagagca ccaagcgctt 450
catcaagtgg tacaacgcct ggaacgagaa ggcgcagggtc tacgaagaat 500
agggtgaaaa acctcagaag ggaaaactcc aaaccagttt ggagacttgt 550
gcaaaggact ttgcagatta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
aaaaaaaaaa aaagccttc tttctcacag gcataagaca caaattatat 650
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ttttaaaaaa tgctttttt tatttgtcca tacgtcacta tacatctgag 850
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cagtgttgtt ccattcctag cttggaaagc ttccgcttag aggtcctggc 950
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tgcttcattc cccctgggtt aattttaca caccccttagga aacatttcca 1150

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tcccaacctg aggatttctg aaaggttcac aggttcaata tttaatgctt 1250
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cttaaaaata tatgaataca tgcgcaatac acagctacag acacacattc 1350
tggtgacaag gaaaaacctt caaagcatgt ttcttcctt caccacaaca 1400
gaacatgcag tactaaagca atatattgt gattccccat gtaattcttc 1450
aatgttaaac agtgcagtcc tcttcgaaa gctaagatga ccatgcgccc 1500
ttccctctgt acatatacc ttaagaacgc cccctccaca cactgcccc 1550
cagtatatgc cgcatgtac tgctgtgtt tatgctatgt acatgtcaga 1600
aaccatttagc attgcatgca ggttcatat tctttctaag atggaaagta 1650
ataaaatata tttgaaatgt aaaaaaaaaa aaaaa 1685

<210> 370

<211> 111

<212> PRT

<213> Homo sapiens

<400> 370

Met Ser Leu Leu Pro Arg Arg Ala Pro Pro Val Ser Met Arg Leu
1 5 10 15

Leu Ala Ala Ala Leu Leu Leu Leu Leu Ala Leu Tyr Thr Ala
20 25 30

Arg Val Asp Gly Ser Lys Cys Lys Cys Ser Arg Lys Gly Pro Lys
35 40 45

Ile Arg Tyr Ser Asp Val Lys Lys Leu Glu Met Lys Pro Lys Tyr
50 55 60

Pro His Cys Glu Glu Lys Met Val Ile Ile Thr Thr Lys Ser Val
65 70 75

Ser Arg Tyr Arg Gly Gln Glu His Cys Leu His Pro Lys Leu Gln
80 85 90

Ser Thr Lys Arg Phe Ile Lys Trp Tyr Asn Ala Trp Asn Glu Lys
95 100 105

Arg Arg Val Tyr Glu Glu
110

<210> 371

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe
<400> 371
cagcgccctc cccatgtccc tg 22

<210> 372
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 372
tcccaactgg tttggagttt tccc 24

<210> 373
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 373
ctccggtag catgaggctc ctggcggccg ctgctcctgc tgctg 45

<210> 374
<211> 3113
<212> DNA
<213> Homo sapiens

<400> 374
gccccaggga ctgctatggc ttcccttggtt gttcaccccg gtctgcgtca 50
tgttaaactc caatgtcctc ctgtggtaa ctgctcttgc catcaagttc 100
accctcattt acagccaagc acagtatcca gttgtcaaca caaattatgg 150
caaaatccgg ggcctaagaa caccgttacc caatgagatc ttgggtccag 200
tggagcagta ctttaggggtc ccctatgcct caccccccac tggagagagg 250
cggtttcagc ccccagaacc cccgtcctcc tggactggca tccgaaatac 300
tactcagttt gctgctgtgt gccccagca cctggatgag agatccttac 350
tgcatgacat gctgccatc tggtttaccg ccaatttgga tactttgatg 400
acctatgttc aagatcaaaa tgaagactgc cttaactttaa acatctacgt 450
gccccacggaa gatggagcca acacaaagaa aaacgcagat gatataacga 500
gtaatgaccg tggtaagac gaagatattc atgatcagaa cagtaagaag 550
cccgcatgg tctatatcca tggggatct tacatggagg gcaccggcaa 600
catgattgac ggcagcattt tggcaagcta cgaaaaacgtc atcgtgatca 650

ccattaacta ccgtctggga atactagggt ttttaagtac cggtgaccag 700
gcagcaaaag gcaactatgg gctcctggat cagattcaag cactgcggtg 750
gattgaggag aatgtggag ccttggcg ggaccccaag agagtgacca 800
tctttggctc gggggctggg gcctcctgtg tcagcctgtt gaccctgtcc 850
cactactcag aaggctcttt ccagaaggcc atcattcaga gcggcaccgc 900
cctgtccagc tggcagtgta actaccagcc ggccaagttac actcgatata 950
tggcagacaa ggtcggctgc aacatgctgg acaccacgga catggtagaa 1000
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cagacgaccc ccagatcctg atggagcaag gcgagttcct caactacgac 1150
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atgacatcat ttccctatgg caccggcga tctccggcca agatatggcc 1950
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gctcctcttc ctcaacatct tagctttgc ggcgctgtac tacaaaaagg 2150
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gacatcacca tttcaaggcc ccgggtgttt ccaacgtcat ggaagcagct 2850
gacacttctg aaactcagcc aaggacactt gatattttt aattacaatg 2900
gaagttaaa catttcttcc tgtgccacac aatggatggc ttccttaag 2950
tgaagaaaaga gtcaatgaga ttttgcggcag cacatggagc tgtaatccag 3000
agagaaggaa acgttagaaat ttattattaa aagaatggac tgtcagcga 3050
aatctgtacg gttctgtgca aagaggtgtt ttgccagcct gaactatatt 3100
taagagactt tgt 3113

<210> 375
<211> 816
<212> PRT
<213> Homo sapiens

<400> 375
Met Leu Asn Ser Asn Val Leu Leu Trp Leu Thr Ala Leu Ala Ile
1 5 10 15
Lys Phe Thr Leu Ile Asp Ser Gln Ala Gln Tyr Pro Val Val Asn
20 25 30
Thr Asn Tyr Gly Lys Ile Arg Gly Leu Arg Thr Pro Leu Pro Asn
35 40 45
Glu Ile Leu Gly Pro Val Glu Gln Tyr Leu Gly Val Pro Tyr Ala

50	55	60
Ser Pro Pro Thr Gly Glu Arg Arg Phe Gln Pro Pro Glu Pro Pro		
65	70	75
Ser Ser Trp Thr Gly Ile Arg Asn Thr Thr Gln Phe Ala Ala Val		
80	85	90
Cys Pro Gln His Leu Asp Glu Arg Ser Leu Leu His Asp Met Leu		
95	100	105
Pro Ile Trp Phe Thr Ala Asn Leu Asp Thr Leu Met Thr Tyr Val		
110	115	120
Gln Asp Gln Asn Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Val Pro		
125	130	135
Thr Glu Asp Gly Ala Asn Thr Lys Lys Asn Ala Asp Asp Ile Thr		
140	145	150
Ser Asn Asp Arg Gly Glu Asp Glu Asp Ile His Asp Gln Asn Ser		
155	160	165
Lys Lys Pro Val Met Val Tyr Ile His Gly Gly Ser Tyr Met Glu		
170	175	180
Gly Thr Gly Asn Met Ile Asp Gly Ser Ile Leu Ala Ser Tyr Gly		
185	190	195
Asn Val Ile Val Ile Thr Ile Asn Tyr Arg Leu Gly Ile Leu Gly		
200	205	210
Phe Leu Ser Thr Gly Asp Gln Ala Ala Lys Gly Asn Tyr Gly Leu		
215	220	225
Leu Asp Gln Ile Gln Ala Leu Arg Trp Ile Glu Glu Asn Val Gly		
230	235	240
Ala Phe Gly Gly Asp Pro Lys Arg Val Thr Ile Phe Gly Ser Gly		
245	250	255
Ala Gly Ala Ser Cys Val Ser Leu Leu Thr Leu Ser His Tyr Ser		
260	265	270
Glu Gly Leu Phe Gln Lys Ala Ile Ile Gln Ser Gly Thr Ala Leu		
275	280	285
Ser Ser Trp Ala Val Asn Tyr Gln Pro Ala Lys Tyr Thr Arg Ile		
290	295	300
Leu Ala Asp Lys Val Gly Cys Asn Met Leu Asp Thr Thr Asp Met		
305	310	315
Val Glu Cys Leu Arg Asn Lys Asn Tyr Lys Glu Leu Ile Gln Gln		
320	325	330
Thr Ile Thr Pro Ala Thr Tyr His Ile Ala Phe Gly Pro Val Ile		
335	340	345

Asp Gly Asp Val Ile Pro Asp Asp Pro Gln Ile Leu Met Glu Gln
 350 355 360
 Gly Glu Phe Leu Asn Tyr Asp Ile Met Leu Gly Val Asn Gln Gly
 365 370 375
 Glu Gly Leu Lys Phe Val Asp Gly Ile Val Asp Asn Glu Asp Gly
 380 385 390
 Val Thr Pro Asn Asp Phe Asp Phe Ser Val Ser Asn Phe Val Asp
 395 400 405
 Asn Leu Tyr Gly Tyr Pro Glu Gly Lys Asp Thr Leu Arg Glu Thr
 410 415 420
 Ile Lys Phe Met Tyr Thr Asp Trp Ala Asp Lys Glu Asn Pro Glu
 425 430 435
 Thr Arg Arg Lys Thr Leu Val Ala Leu Phe Thr Asp His Gln Trp
 440 445 450
 Val Ala Pro Ala Val Ala Ala Asp Leu His Ala Gln Tyr Gly Ser
 455 460 465
 Pro Thr Tyr Phe Tyr Ala Phe Tyr His His Cys Gln Ser Glu Met
 470 475 480
 Lys Pro Ser Trp Ala Asp Ser Ala His Gly Asp Glu Val Pro Tyr
 485 490 495
 Val Phe Gly Ile Pro Met Ile Gly Pro Thr Glu Leu Phe Ser Cys
 500 505 510
 Asn Phe Ser Lys Asn Asp Val Met Leu Ser Ala Val Val Met Thr
 515 520 525
 Tyr Trp Thr Asn Phe Ala Lys Thr Gly Asp Pro Asn Gln Pro Val
 530 535 540
 Pro Gln Asp Thr Lys Phe Ile His Thr Lys Pro Asn Arg Phe Glu
 545 550 555
 Glu Val Ala Trp Ser Lys Tyr Asn Pro Lys Asp Gln Leu Tyr Leu
 560 565 570
 His Ile Gly Leu Lys Pro Arg Val Arg Asp His Tyr Arg Ala Thr
 575 580 585
 Lys Val Ala Phe Trp Leu Glu Leu Val Pro His Leu His Asn Leu
 590 595 600
 Asn Glu Ile Phe Gln Tyr Val Ser Thr Thr Lys Val Pro Pro
 605 610 615
 Pro Asp Met Thr Ser Phe Pro Tyr Gly Thr Arg Arg Ser Pro Ala
 620 625 630
 Lys Ile Trp Pro Thr Thr Lys Arg Pro Ala Ile Thr Pro Ala Asn

635 640 645
Asn Pro Lys His Ser Lys Asp Pro His Lys Thr Gly Pro Glu Asp
650 655 660
Thr Thr Val Leu Ile Glu Thr Lys Arg Asp Tyr Ser Thr Glu Leu
665 670 675
Ser Val Thr Ile Ala Val Gly Ala Ser Leu Leu Phe Leu Asn Ile
680 685 690
Leu Ala Phe Ala Ala Leu Tyr Tyr Lys Lys Asp Lys Arg Arg His
695 700 705
Glu Thr His Arg Arg Pro Ser Pro Gln Arg Asn Thr Thr Asn Asp
710 715 720
Ile Ala His Ile Gln Asn Glu Glu Ile Met Ser Leu Gln Met Lys
725 730 735
Gln Leu Glu His Asp His Glu Cys Glu Ser Leu Gln Ala His Asp
740 745 750
Thr Leu Arg Leu Thr Cys Pro Pro Asp Tyr Thr Leu Thr Leu Arg
755 760 765
Arg Ser Pro Asp Asp Ile Pro Leu Met Thr Pro Asn Thr Ile Thr
770 775 780
Met Ile Pro Asn Thr Leu Thr Gly Met Gln Pro Leu His Thr Phe
785 790 795
Asn Thr Phe Ser Gly Gly Gln Asn Ser Thr Asn Leu Pro His Gly
800 805 810
His Ser Thr Thr Arg Val
815

<210> 376

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 376

ggcaagctac ggaaacgtca tcgtg 25

<210> 377

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 377

ggtatcatac tctacaacaa atggcaggaa cagagcccaa agcgcttcta 1050
ctgagccctc ctgctgccac cactttgtg actgtcaccc atgaggtatg 1100
gaaggagcag gcactggcct gagcatgcag cctggagagt gttcttgtct 1150
ctagcagctg gttggggact atattctgtc actggagttt tgaatgcagg 1200
gaccggcat tcccatgggt gtgcattggg acatctaact ctggctggg 1250
aagccaccca ccccaggca atgctgctgt gatgtgcctt tccctgcagt 1300
cctccatgt gggagcagag gtgtgaagag aatttacgtg gttgtatgc 1350
caaaatcaca gaacagaatt tcataggcca ggctgcccgtg ttgtttgact 1400
cagaaggccc ttctacttca gtttgaatc cacaagaat taaaaactgg 1450
taacaccaca ggctttctga ccatccattc gttgggtttt gcatttgacc 1500
caaccctctg cctacctgag gagctttctt tggaaaccag gatggaaact 1550
tctccctgc cttaccttcc tttcaactcca ttcattgtcc tctctgtgtg 1600
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gagacagttg ctgttctcat gttccaagtc tgagagcaac agaccctcat 2150
catctgtgcc tggaaagagtt cactgtcatt gagcagcaca gcctgagtgc 2200
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gctgctcacc ttactgcctt gggattaaat cagttacagg ccagagtctc 2300
cttggagggc ctggaactct gagtcctcct atgaacctct gtagcctaaa 2350
tgaaaattctt aaaatcacccg atggaaccaa aaaaaaaaaa aaaaaggcg 2400
gccgcgactc tagagtcgac ctgcagtagg gataacaggg taataagctt 2450

ggccgccccatg g 2461

<210> 380

<211> 348

<212> PRT

<213> Homo sapiens

<400> 380

Met Ala Ala Thr Leu Gly Pro Leu Gly Ser Trp Gln Gln Trp Arg
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Arg Cys Leu Ser Ala Arg Asp Gly Ser Arg Met Leu Leu Leu
20 25 30

Leu Leu Leu Gly Ser Gly Gln Gly Pro Gln Gln Val Gly Ala Gly
35 40 45

Gln Thr Phe Glu Tyr Leu Lys Arg Glu His Ser Leu Ser Lys Pro
50 55 60

Tyr Gln Gly Val Gly Thr Gly Ser Ser Leu Trp Asn Leu Met
65 70 75

Gly Asn Ala Met Val Met Thr Gln Tyr Ile Arg Leu Thr Pro Asp
80 85 90

Met Gln Ser Lys Gln Gly Ala Leu Trp Asn Arg Val Pro Cys Phe
95 100 105

Leu Arg Asp Trp Glu Leu Gln Val His Phe Lys Ile His Gly Gln
110 115 120

Gly Lys Lys Asn Leu His Gly Asp Gly Leu Ala Ile Trp Tyr Thr
125 130 135

Lys Asp Arg Met Gln Pro Gly Pro Val Phe Gly Asn Met Asp Lys
140 145 150

Phe Val Gly Leu Gly Val Phe Val Asp Thr Tyr Pro Asn Glu Glu
155 160 165

Lys Gln Gln Glu Arg Val Phe Pro Tyr Ile Ser Ala Met Val Asn
170 175 180

Asn Gly Ser Leu Ser Tyr Asp His Glu Arg Asp Gly Arg Pro Thr
185 190 195

Glu Leu Gly Gly Cys Thr Ala Ile Val Arg Asn Leu His Tyr Asp
200 205 210

Thr Phe Leu Val Ile Arg Tyr Val Lys Arg His Leu Thr Ile Met
215 220 225

Met Asp Ile Asp Gly Lys His Glu Trp Arg Asp Cys Ile Glu Val
230 235 240

Pro Gly Val Arg Leu Pro Arg Gly Tyr Tyr Phe Gly Thr Ser Ser
245 250 255

Ile Thr Gly Asp Leu Ser Asp Asn His Asp Val Ile Ser Leu Lys
260 265 270

Leu Phe Glu Leu Thr Val Glu Arg Thr Pro Glu Glu Glu Lys Leu
275 280 285

His Arg Asp Val Phe Leu Pro Ser Val Asp Asn Met Lys Leu Pro
290 295 300

Glu Met Thr Ala Pro Leu Pro Pro Leu Ser Gly Leu Ala Leu Phe
305 310 315

Leu Ile Val Phe Phe Ser Leu Val Phe Ser Val Phe Ala Ile Val
320 325 330

Ile Gly Ile Ile Leu Tyr Asn Lys Trp Gln Glu Gln Ser Arg Lys
335 340 345

Arg Phe Tyr

<210> 381

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 381

ccttgggtcg tggcagcagt gg 22

<210> 382

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 382

cactctccag gctgcattgt cagg 24

<210> 383

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 383

gtcaaacgtt cgagtacttg aaacgggagc actcgctgtc gaagc 45

<210> 384

<211> 3150

<212> DNA

<213> Homo sapiens

<400> 384

ccgagccggg cgcgacgcga cggagctggg gccggcctgg gaccatggc 50
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ggggactcca agatttccat gaagaaaatc agttgtcttc attcaagaat 150
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<210> 385
<211> 480
<212> PRT
<213> Homo sapiens

<400> 385
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Pro Val Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys
35 40 45
Arg Ile Met Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro
50 55 60
Val Tyr Glu Ala Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu
65 70 75
Arg Ser Met Glu Gly His Ala Pro His His Phe Lys Leu Val Ser
80 85 90
Val His Val Phe Ile Arg His Gly Asp Arg Tyr Pro Leu Tyr Val
95 100 105
Ile Pro Lys Thr Lys Arg Pro Glu Ile Asp Cys Thr Leu Val Ala
110 115 120
Asn Arg Lys Pro Tyr His Pro Lys Leu Glu Ala Phe Ile Ser His
125 130 135
Met Ser Lys Gly Ser Gly Ala Ser Phe Glu Ser Pro Leu Asn Ser
140 145 150
Leu Pro Leu Tyr Pro Asn His Pro Leu Cys Glu Met Gly Glu Leu
155 160 165
Thr Gln Thr Gly Val Val Gln His Leu Gln Asn Gly Gln Leu Leu
170 175 180
Arg Asp Ile Tyr Leu Lys Lys His Lys Leu Leu Pro Asn Asp Trp
185 190 195
Ser Ala Asp Gln Leu Tyr Leu Glu Thr Thr Gly Lys Ser Arg Thr
200 205 210

Leu Gln Ser Gly Leu Ala Leu Leu Tyr Gly Phe Leu Pro Asp Phe
 215 220 225
 Asp Trp Lys Lys Ile Tyr Phe Arg His Gln Pro Ser Ala Leu Phe
 230 235 240
 Cys Ser Gly Ser Cys Tyr Cys Pro Val Arg Asn Gln Tyr Leu Glu
 245 250 255
 Lys Glu Gln Arg Arg Gln Tyr Leu Leu Arg Leu Lys Asn Ser Gln
 260 265 270
 Leu Glu Lys Thr Tyr Gly Glu Met Ala Lys Ile Val Asp Val Pro
 275 280 285
 Thr Lys Gln Leu Arg Ala Ala Asn Pro Ile Asp Ser Met Leu Cys
 290 295 300
 His Phe Cys His Asn Val Ser Phe Pro Cys Thr Arg Asn Gly Cys
 305 310 315
 Val Asp Met Glu His Phe Lys Val Ile Lys Thr His Gln Ile Glu
 320 325 330
 Asp Glu Arg Glu Arg Arg Glu Lys Lys Leu Tyr Phe Gly Tyr Ser
 335 340 345
 Leu Leu Gly Ala His Pro Ile Leu Asn Gln Thr Ile Gly Arg Met
 350 355 360
 Gln Arg Ala Thr Glu Gly Arg Lys Glu Glu Leu Phe Ala Leu Tyr
 365 370 375
 Ser Ala His Asp Val Thr Leu Ser Pro Val Leu Ser Ala Leu Gly
 380 385 390
 Leu Ser Glu Ala Arg Phe Pro Arg Phe Ala Ala Arg Leu Ile Phe
 395 400 405
 Glu Leu Trp Gln Asp Arg Glu Lys Pro Ser Glu His Ser Val Arg
 410 415 420
 Ile Leu Tyr Asn Gly Val Asp Val Thr Phe His Thr Ser Phe Cys
 425 430 435
 Gln Asp His His Lys Arg Ser Pro Lys Pro Met Cys Pro Leu Glu
 440 445 450
 Asn Leu Val Arg Phe Val Lys Arg Asp Met Phe Val Ala Leu Gly
 455 460 465
 Gly Ser Gly Thr Asn Tyr Tyr Asp Ala Cys His Arg Glu Gly Phe
 470 475 480

<210> 386

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 386
ccaaggcagct tagagctcca gacc 24

<210> 387
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 387
ttccctatgc tctgtattgg catgg 25

<210> 388
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 388
gccacttctg ccacaatgtc agcttccct gtaccagaaa tggctgtgtt 50

<210> 389
<211> 3313
<212> DNA
<213> Homo sapiens

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<210> 390
<211> 916
<212> PRT
<213> Homo sapiens

<400> 390

Met Ile Pro Ala Arg Leu His Arg Asp Tyr Lys Gly Leu Val Leu
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Leu Gly Ile Leu Leu Gly Thr Leu Trp Glu Thr Gly Cys Thr Gln
20 25 30

Ile Arg Tyr Ser Val Pro Glu Glu Leu Glu Lys Gly Ser Arg Val
35 40 45

Gly Asp Ile Ser Arg Asp Leu Gly Leu Glu Pro Arg Glu Leu Ala
50 55 60

Glu Arg Gly Val Arg Ile Ile Pro Arg Gly Arg Thr Gln Leu Phe
65 70 75

Ala Leu Asn Pro Arg Ser Gly Ser Leu Val Thr Ala Gly Arg Ile
80 85 90

Asp Arg Glu Glu Leu Cys Met Gly Ala Ile Lys Cys Gln Leu Asn
95 100 105

Leu Asp Ile Leu Met Glu Asp Lys Val Lys Ile Tyr Gly Val Glu
110 115 120

Val Glu Val Arg Asp Ile Asn Asp Asn Ala Pro Tyr Phe Arg Glu
125 130 135

Ser Glu Leu Glu Ile Lys Ile Ser Glu Asn Ala Ala Thr Glu Met
140 145 150

Arg Phe Pro Leu Pro His Ala Trp Asp Pro Asp Ile Gly Lys Asn
155 160 165

Ser Leu Gln Ser Tyr Glu Leu Ser Pro Asn Thr His Phe Ser Leu
170 175 180

Ile Val Gln Asn Gly Ala Asp Gly Ser Lys Tyr Pro Glu Leu Val
185 190 195

Leu Lys Arg Ala Leu Asp Arg Glu Glu Lys Ala Ala His His Leu
200 205 210

Val Leu Thr Ala Ser Asp Gly Gly Asp Pro Val Arg Thr Gly Thr
215 220 225

Ala Arg Ile Arg Val Met Val Leu Asp Ala Asn Asp Asn Ala Pro
230 235 240

Ala Phe Ala Gln Pro Glu Tyr Arg Ala Ser Val Pro Glu Asn Leu
245 250 255

Ala Leu Gly Thr Gln Leu Leu Val Val Asn Ala Thr Asp Pro Asp
260 265 270

Glu Gly Val Asn Ala Glu Val Arg Tyr Ser Phe Arg Tyr Val Asp
275 280 285

Asp Lys Ala Ala Gln Val Phe Lys Leu Asp Cys Asn Ser Gly Thr

290	295	300
Ile Ser Thr Ile Gly Glu Leu Asp His	Glu Glu Ser Gly Phe Tyr	
305	310	315
Gln Met Glu Val Gln Ala Met Asp Asn Ala	Gly Tyr Ser Ala Arg	
320	325	330
Ala Lys Val Leu Ile Thr Val Leu Asp Val Asn Asp Asn Ala	Pro	
335	340	345
Glu Val Val Leu Thr Ser Leu Ala Ser Ser	Val Pro Glu Asn Ser	
350	355	360
Pro Arg Gly Thr Leu Ile Ala Leu Leu Asn Val Asn Asp Gln Asp		
365	370	375
Ser Glu Glu Asn Gly Gln Val Ile Cys Phe Ile Gln Gly Asn Leu		
380	385	390
Pro Phe Lys Leu Glu Lys Ser Tyr Gly Asn Tyr Tyr Ser Leu Val		
395	400	405
Thr Asp Ile Val Leu Asp Arg Glu Gln Val Pro Ser Tyr Asn Ile		
410	415	420
Thr Val Thr Ala Thr Asp Arg Gly Thr Pro Pro Leu Ser Thr Glu		
425	430	435
Thr His Ile Ser Leu Asn Val Ala Asp Thr Asn Asp Asn Pro Pro		
440	445	450
Val Phe Pro Gln Ala Ser Tyr Ser Ala Tyr Ile Pro Glu Asn Asn		
455	460	465
Pro Arg Gly Val Ser Leu Val Ser Val Thr Ala His Asp Pro Asp		
470	475	480
Cys Glu Glu Asn Ala Gln Ile Thr Tyr Ser Leu Ala Glu Asn Thr		
485	490	495
Ile Gln Gly Ala Ser Leu Ser Ser Tyr Val Ser Ile Asn Ser Asp		
500	505	510
Thr Gly Val Leu Tyr Ala Leu Ser Ser Phe Asp Tyr Glu Gln Phe		
515	520	525
Arg Asp Leu Gln Val Lys Val Met Ala Arg Asp Asn Gly His Pro		
530	535	540
Pro Leu Ser Ser Asn Val Ser Leu Ser Leu Phe Val Leu Asp Gln		
545	550	555
Asn Asp Asn Ala Pro Glu Ile Leu Tyr Pro Ala Leu Pro Thr Asp		
560	565	570
Gly Ser Thr Gly Val Glu Leu Ala Pro Arg Ser Ala Glu Pro Gly		
575	580	585

Tyr Leu Val Thr Lys Val Val Ala Val Asp Arg Asp Ser Gly Gln
 590 595 600
 Asn Ala Trp Leu Ser Tyr Arg Leu Leu Lys Ala Ser Glu Pro Gly
 605 610 615
 Leu Phe Ser Val Gly Leu His Thr Gly Glu Val Arg Thr Ala Arg
 620 625 630
 Ala Leu Leu Asp Arg Asp Ala Leu Lys Gln Ser Leu Val Val Ala
 635 640 645
 Val Gln Asp His Gly Gln Pro Pro Leu Ser Ala Thr Val Thr Leu
 650 655 660
 Thr Val Ala Val Ala Asp Ser Ile Pro Gln Val Leu Ala Asp Leu
 665 670 675
 Gly Ser Leu Glu Ser Pro Ala Asn Ser Glu Thr Ser Asp Leu Thr
 680 685 690
 Leu Tyr Leu Val Val Ala Val Ala Ala Val Ser Cys Val Phe Leu
 695 700 705
 Ala Phe Val Ile Leu Leu Ala Leu Arg Leu Arg Arg Trp His
 710 715 720
 Lys Ser Arg Leu Leu Gln Ala Ser Gly Gly Leu Thr Gly Ala
 725 730 735
 Pro Ala Ser His Phe Val Gly Val Asp Gly Val Gln Ala Phe Leu
 740 745 750
 Gln Thr Tyr Ser His Glu Val Ser Leu Thr Thr Asp Ser Arg Lys
 755 760 765
 Ser His Leu Ile Phe Pro Gln Pro Asn Tyr Ala Asp Met Leu Val
 770 775 780
 Ser Gln Glu Ser Phe Glu Lys Ser Glu Pro Leu Leu Leu Ser Gly
 785 790 795
 Asp Ser Val Phe Ser Lys Asp Ser His Gly Leu Ile Glu Val Ser
 800 805 810
 Leu Tyr Gln Ile Phe Phe Leu Phe Phe Asn Cys Ser Val Ser
 815 820 825
 Gln Ala Gly Val Gln Arg Tyr Asp His Ser Ser Leu Arg Pro Gln
 830 835 840
 Thr Pro Arg Leu Lys Gln Leu Ser His Leu Cys Leu Arg Cys Asn
 845 850 855
 Arg Asp Tyr Arg Cys Lys Pro Pro Thr Val Cys Leu Ser Ile Tyr
 860 865 870
 Leu Ser Ile Tyr Leu Ser Ile Tyr Leu Ser Ile Tyr Leu Leu

875 880 885
Ser Cys Thr Asp Gly Ser Leu Thr Pro Val Ile Pro Val Leu Trp
890 895 900
Glu Ala Glu Ala Gly Gly Ser Pro Glu Val Gly Ser Leu Arg Pro
905 910 915
Ala

<210> 391
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 391
tccgtctctg tgaaccggccc cac 23

<210> 392
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 392
ctcgggcgca ttgtcgttct ggtc 24

<210> 393
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 393
ccgactgtga aagagaacgc cccagatcca cttgttcccc 40

<210> 394
<211> 999
<212> DNA
<213> Homo sapiens

<400> 394
cccaggctct agtgcaggag gagaaggagg aggagcagga ggtggagatt 50
cccagttaaa aggctccaga atcgtgtacc aggcagagaa ctgaagtact 100
ggggcctcct ccactgggtc cgaatcagta ggtgaccccc cccctggatt 150
ctggaagacc tcaccatggg acgccccgga cctcgtgcgg ccaagacgtg 200

gatgttcctg ctcttgctgg ggggagcctg ggcaggacac tccagggcac 250
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ctaggataag cactagatct cccttaataa actcacaact ctctggttc 999

<210> 395

<211> 260

<212> PRT

<213> Homo sapiens

<400> 395

Met Gly Arg Pro Arg Pro Arg Ala Ala Lys Thr Trp Met Phe Leu
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Leu Leu Leu Gly Gly Ala Trp Ala Gly His Ser Arg Ala Gln Glu
20 25 30

Asp Lys Val Leu Gly Gly His Glu Cys Gln Pro His Ser Gln Pro
35 40 45

Trp Gln Ala Ala Leu Phe Gln Gly Gln Gln Leu Leu Cys Gly Gly
50 55 60

Val Leu Val Gly Gly Asn Trp Val Leu Thr Ala Ala His Cys Lys
65 70 75

Lys Pro Lys Tyr Thr Val Arg Leu Gly Asp His Ser Leu Gln Asn
80 85 90

Lys Asp Gly Pro Glu Gln Glu Ile Pro Val Val Gln Ser Ile Pro
95 100 105

His Pro Cys Tyr Asn Ser Ser Asp Val Glu Asp His Asn His Asp
110 115 120

Leu Met Leu Leu Gln Leu Arg Asp Gln Ala Ser Leu Gly Ser Lys
125 130 135

Val Lys Pro Ile Ser Leu Ala Asp His Cys Thr Gln Pro Gly Gln
140 145 150

Lys Cys Thr Val Ser Gly Trp Gly Thr Val Thr Ser Pro Arg Glu
155 160 165

Asn Phe Pro Asp Thr Leu Asn Cys Ala Glu Val Lys Ile Phe Pro
170 175 180

Gln Lys Lys Cys Glu Asp Ala Tyr Pro Gly Gln Ile Thr Asp Gly
185 190 195

Met Val Cys Ala Gly Ser Ser Lys Gly Ala Asp Thr Cys Gln Gly
200 205 210

Asp Ser Gly Gly Pro Leu Val Cys Asp Gly Ala Leu Gln Gly Ile
215 220 225

Thr Ser Trp Gly Ser Asp Pro Cys Gly Arg Ser Asp Lys Pro Gly
230 235 240

Val Tyr Thr Asn Ile Cys Arg Tyr Leu Asp Trp Ile Lys Lys Ile
245 250 255

Ile Gly Ser Lys Gly
260

<210> 396

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 396

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<210> 397

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 397

ggtgcaatga tctgccaggc tcat 24

<210> 398

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 398

agaaaataacct gtggttcagt ccatccaaa cccctgctac aacagcag 48

<210> 399

<211> 2236

<212> DNA

<213> Homo sapiens

<400> 399

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cgcgcgcagg ccccgccccg gcccggccccc gccccggccc ggccggcggg 200

gaaaccgggc ggatttcctcg cgcgtcaaac cacctgatcc cataaaacat 250

tcatcctccc ggcggccgc gctgcgagcg ccccgccagt ccgcggccgc 300

gccggccctcg ccctgtgcgc cctgcgcgcctc ctgcgcaccc gggccggag 350

cccagccaga gccggggcgga gcggagcgcg ccgagcctcg tcccgccggc 400

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<210> 400

<211> 473

<212> PRT

<213> Homo sapiens

<400> 400

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														30
20														25

Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln
 35 40 45
 Gln Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln
 50 55 60
 Arg Ile Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala
 65 70 75
 Ser Phe Arg Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser
 80 85 90
 Asn Val Leu Ala Arg Ile Asp Ala Ala Phe Thr Gly Leu Ala
 95 100 105
 Leu Leu Glu Gln Leu Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser
 110 115 120
 Val Asp Pro Ala Thr Phe His Gly Leu Gly Arg Leu His Thr Leu
 125 130 135
 His Leu Asp Arg Cys Gly Leu Gln Glu Leu Gly Pro Gly Leu Phe
 140 145 150
 Arg Gly Leu Ala Ala Leu Gln Tyr Leu Tyr Leu Gln Asp Asn Ala
 155 160 165
 Leu Gln Ala Leu Pro Asp Asp Thr Phe Arg Asp Leu Gly Asn Leu
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 Thr His Leu Phe Leu His Gly Asn Arg Ile Ser Ser Val Pro Glu
 185 190 195
 Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg Leu Leu Leu His
 200 205 210
 Gln Asn Arg Val Ala His Val His Pro His Ala Phe Arg Asp Leu
 215 220 225
 Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu Ser Ala
 230 235 240
 Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr Leu
 245 250 255
 Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
 260 265 270
 Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val
 275 280 285
 Pro Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg
 290 295 300
 Leu Ala Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro
 305 310 315
 Tyr His Pro Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu

320 325 330

Gly Leu Pro Lys Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser
335 340 345

Val Leu Glu Pro Gly Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys
350 355 360

Gly Arg Val Pro Pro Gly Asp Ser Pro Pro Gly Asn Gly Ser Gly
365 370 375

Pro Arg His Ile Asn Asp Ser Pro Phe Gly Thr Leu Pro Gly Ser
380 385 390

Ala Glu Pro Pro Leu Thr Ala Val Arg Pro Glu Gly Ser Glu Pro
395 400 405

Pro Gly Phe Pro Thr Ser Gly Pro Arg Arg Arg Pro Gly Cys Ser
410 415 420

Arg Lys Asn Arg Thr Arg Ser His Cys Arg Leu Gly Gln Ala Gly
425 430 435

Ser Gly Gly Gly Thr Gly Asp Ser Glu Gly Ser Gly Ala Leu
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Pro Ser Leu Thr Cys Ser Leu Thr Pro Leu Gly Leu Ala Leu Val
455 460 465

Leu Trp Thr Val Leu Gly Pro Cys
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<210> 401
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 401
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<210> 402
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 402
ccctgcaggt cattggcagc tagg 24

<210> 403
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 403
aggcactgcc tcatgacacc ttccgcgacc tggcaacct cacac 45

<210> 404
<211> 2738
<212> DNA
<213> Homo sapiens

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tgtttaaag tgaacattta ccttattcc tggttctt 2738

<210> 405
<211> 798
<212> PRT
<213> Homo sapiens

<400> 405
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35 40 45
Val Thr Asn Leu Ala Lys Asp Leu Gly Leu Glu Gln Arg Glu Phe
50 55 60
Ser Arg Arg Gly Val Arg Val Val Ser Arg Gly Asn Lys Leu His
65 70 75
Leu Gln Leu Asn Gln Glu Thr Ala Asp Leu Leu Leu Asn Glu Lys
80 85 90
Leu Asp Arg Glu Asp Leu Cys Gly His Thr Glu Pro Cys Val Leu
95 100 105
Arg Phe Gln Val Leu Leu Glu Ser Pro Phe Glu Phe Phe Gln Ala
110 115 120
Glu Leu Gln Val Ile Asp Ile Asn Asp His Ser Pro Val Phe Leu
125 130 135
Asp Lys Gln Met Leu Val Lys Val Ser Glu Ser Ser Pro Pro Gly
140 145 150
Thr Thr Phe Pro Leu Lys Asn Ala Glu Asp Leu Asp Val Gly Gln
155 160 165
Asn Asn Ile Glu Asn Tyr Ile Ile Ser Pro Asn Ser Tyr Phe Arg
170 175 180
Val Leu Thr Arg Lys Arg Ser Asp Gly Arg Lys Tyr Pro Glu Leu
185 190 195
Val Leu Asp Lys Ala Leu Asp Arg Glu Glu Ala Glu Leu Arg
200 205 210
Leu Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Pro Arg Ser Gly
215 220 225
Thr Ala Gln Val Tyr Ile Glu Val Leu Asp Val Asn Asp Asn Ala

230	235	240
Pro Glu Phe Glu Gln Pro Phe Tyr Arg Val Gln Ile Ser Glu Asp		
245	250	255
Ser Pro Val Gly Phe Leu Val Val Lys Val Ser Ala Thr Asp Val		
260	265	270
Asp Thr Gly Val Asn Gly Glu Ile Ser Tyr Ser Leu Phe Gln Ala		
275	280	285
Ser Glu Glu Ile Gly Lys Thr Phe Lys Ile Asn Pro Leu Thr Gly		
290	295	300
Glu Ile Glu Leu Lys Lys Gln Leu Asp Phe Glu Lys Leu Gln Ser		
305	310	315
Tyr Glu Val Asn Ile Glu Ala Arg Asp Ala Gly Thr Phe Ser Gly		
320	325	330
Lys Cys Thr Val Leu Ile Gln Val Ile Asp Val Asn Asp His Ala		
335	340	345
Pro Glu Val Thr Met Ser Ala Phe Thr Ser Pro Ile Pro Glu Asn		
350	355	360
Ala Pro Glu Thr Val Val Ala Leu Phe Ser Val Ser Asp Leu Asp		
365	370	375
Ser Gly Glu Asn Gly Lys Ile Ser Cys Ser Ile Gln Glu Asp Leu		
380	385	390
Pro Phe Leu Leu Lys Ser Ala Glu Asn Phe Tyr Thr Leu Leu Thr		
395	400	405
Glu Arg Pro Leu Asp Arg Glu Ser Arg Ala Glu Tyr Asn Ile Thr		
410	415	420
Ile Thr Val Thr Asp Leu Gly Thr Pro Met Leu Ile Thr Gln Leu		
425	430	435
Asn Met Thr Val Leu Ile Ala Asp Val Asn Asp Asn Ala Pro Ala		
440	445	450
Phe Thr Gln Thr Ser Tyr Thr Leu Phe Val Arg Glu Asn Asn Ser		
455	460	465
Pro Ala Leu His Ile Arg Ser Val Ser Ala Thr Asp Arg Asp Ser		
470	475	480
Gly Thr Asn Ala Gln Val Thr Tyr Ser Leu Leu Pro Pro Gln Asp		
485	490	495
Pro His Leu Pro Leu Thr Ser Leu Val Ser Ile Asn Ala Asp Asn		
500	505	510
Gly His Leu Phe Ala Leu Arg Ser Leu Asp Tyr Glu Ala Leu Gln		
515	520	525

Gly Phe Gln Phe Arg Val Gly Ala Ser Asp His Gly Ser Pro Ala
530 535 540

Leu Ser Ser Glu Ala Leu Val Arg Val Val Val Leu Asp Ala Asn
545 550 555

Asp Asn Ser Pro Phe Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala
560 565 570

Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Pro Gly Tyr Leu
575 580 585

Val Thr Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala
590 595 600

Trp Leu Ser Tyr Gln Leu Leu Lys Ala Thr Glu Leu Gly Leu Phe
605 610 615

Gly Val Trp Ala His Asn Gly Glu Val Arg Thr Ala Arg Leu Leu
620 625 630

Ser Glu Arg Asp Ala Ala Lys His Arg Leu Val Val Leu Val Lys
635 640 645

Asp Asn Gly Glu Pro Pro Arg Ser Ala Thr Ala Thr Leu His Val
650 655 660

Leu Leu Val Asp Gly Phe Ser Gln Pro Tyr Leu Pro Leu Pro Glu
665 670 675

Ala Ala Pro Thr Gln Ala Gln Ala Asp Leu Leu Thr Val Tyr Leu
680 685 690

Val Val Ala Leu Ala Ser Val Ser Ser Leu Phe Leu Phe Ser Val
695 700 705

Leu Leu Phe Val Ala Val Arg Leu Cys Arg Arg Ser Arg Ala Ala
710 715 720

Ser Val Gly Arg Cys Leu Val Pro Glu Gly Pro Leu Pro Gly His
725 730 735

Leu Val Asp Met Ser Gly Thr Arg Thr Leu Ser Gln Ser Tyr Gln
740 745 750

Tyr Glu Val Cys Leu Ala Gly Gly Ser Gly Thr Asn Glu Phe Lys
755 760 765

Phe Leu Lys Pro Ile Ile Pro Asn Phe Pro Pro Gln Cys Pro Gly
770 775 780

Lys Glu Ile Gln Gly Asn Ser Thr Phe Pro Asn Asn Phe Gly Phe
785 790 795

Asn Ile Gln

<210> 406

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 406
ctgagaacgc gcctgaaact gtg 23

<210> 407
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 407
agcggttgtca ttgacatcgg cg 22

<210> 408
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 408
tttagttgctc cattcaggag gatctaccct tcctcctgaa atccgcggaa 50

<210> 409
<211> 1379
<212> DNA
<213> Homo sapiens

<400> 409
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cggtcgacga ccgccccgcg tcatcggtt cctcggtgg tggcaagtat 150
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acagggcagc agaagaggcc aatgcggtgc tggggctgga caccgaaggc 350
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aacaactgaa tgtataaaaa aattataaac tggtgttta actagtattg 1350
caataagcaa atgcaaaaat attcaatacg 1379

<210> 410

<211> 360

<212> PRT

<213> Homo sapiens

<400> 410

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20 25 30

Arg Gly Val Glu Val Ala Glu Glu Ser Gly Arg Leu Trp Ser Glu
35 40 45

Glu Gln Pro Ala His Pro Leu Gln Val Gly Ala Val Tyr Leu Gly
50 55 60

Glu Glu Glu Leu Leu His Asp Pro Met Gly Gln Asp Arg Ala Ala
65 70 75

Glu Glu Ala Asn Ala Val Leu Gly Leu Asp Thr Gln Gly Asp His

80	85	90
Met Val Met Leu Ser Val Ile Pro Gly Glu Ala Glu Asp Lys Val		
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Ser Ser Glu Pro Ser Gly Val Thr Cys Gly Ala Gly Gly Ala Glu		
110	115	120
Asp Ser Arg Cys Asn Val Arg Glu Ser Leu Phe Ser Leu Asp Gly		
125	130	135
Ala Gly Ala His Phe Pro Asp Arg Glu Glu Glu Tyr Tyr Thr Glu		
140	145	150
Pro Glu Val Ala Glu Ser Asp Ala Ala Pro Thr Glu Asp Ser Asn		
155	160	165
Asn Thr Glu Ser Leu Lys Ser Pro Lys Val Asn Cys Glu Glu Arg		
170	175	180
Asn Ile Thr Gly Leu Glu Asn Phe Thr Leu Lys Ile Leu Asn Met		
185	190	195
Ser Gln Asp Leu Met Asp Phe Leu Asn Pro Asn Gly Ser Asp Cys		
200	205	210
Thr Leu Val Leu Phe Tyr Thr Pro Trp Cys Arg Phe Ser Ala Ser		
215	220	225
Leu Ala Pro His Phe Asn Ser Leu Pro Arg Ala Phe Pro Ala Leu		
230	235	240
His Phe Leu Ala Leu Asp Ala Ser Gln His Ser Ser Leu Ser Thr		
245	250	255
Arg Phe Gly Thr Val Ala Val Pro Asn Ile Leu Leu Phe Gln Gly		
260	265	270
Ala Lys Pro Met Ala Arg Phe Asn His Thr Asp Arg Thr Leu Glu		
275	280	285
Thr Leu Lys Ile Phe Ile Phe Asn Gln Thr Gly Ile Glu Ala Lys		
290	295	300
Lys Asn Val Val Val Thr Gln Ala Asp Gln Ile Gly Pro Leu Pro		
305	310	315
Ser Thr Leu Ile Lys Ser Val Asp Trp Leu Leu Val Phe Ser Leu		
320	325	330
Phe Phe Leu Ile Ser Phe Ile Met Tyr Ala Thr Ile Arg Thr Glu		
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<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 411
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<210> 412
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 412
ccacatgttc ctgctttgt cctgg 25

<210> 413
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 413
cggtagtgac tgtactctag tcctgtttta caccccg 45

<210> 414
<211> 1196
<212> DNA
<213> Homo sapiens

<400> 414
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gcgcagcaat tgcaagccca tcccgtcaa cctgcagctg tgccacggca 200
tcgaataccca gaacatgcgg ctgcccacc tgctggccca cgagaccatg 250
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accatttaca agctgaacgg tggccgaa agggacctga agaaatcggt 750
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<210> 415

<211> 295

<212> PRT

<213> Homo sapiens

<400> 415

Met	Leu	Gln	Gly	Pro	Gly	Ser	Leu	Leu	Leu	Phe	Leu	Ala	Ser
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His	Cys	Cys	Leu	Gly	Ser	Ala	Arg	Gly	Leu	Phe	Leu	Phe	Gly	Gln
					20				25					30

Pro	Asp	Phe	Ser	Tyr	Lys	Arg	Ser	Asn	Cys	Lys	Pro	Ile	Pro	Val
				35					40					45

Asn	Leu	Gln	Leu	Cys	His	Gly	Ile	Glu	Tyr	Gln	Asn	Met	Arg	Leu
				50					55					60

Pro	Asn	Leu	Leu	Gly	His	Glu	Thr	Met	Lys	Glu	Val	Leu	Glu	Gln
				65					70					75

Ala	Gly	Ala	Trp	Ile	Pro	Leu	Val	Met	Lys	Gln	Cys	His	Pro	Asp
				80					85					90

Thr	Lys	Lys	Phe	Leu	Cys	Ser	Leu	Phe	Ala	Pro	Val	Cys	Leu	Asp
				95					100					105

Asp	Leu	Asp	Glu	Thr	Ile	Gln	Pro	Cys	His	Ser	Leu	Cys	Val	Gln
				110					115					120

Val	Lys	Asp	Arg	Cys	Ala	Pro	Val	Met	Ser	Ala	Phe	Gly	Phe	Pro
				125					130					135

Trp Pro Asp Met Leu Glu Cys Asp Arg Phe Pro Gln Asp Asn Asp
140 145 150

Leu Cys Ile Pro Leu Ala Ser Ser Asp His Leu Leu Pro Ala Thr
155 160 165

Glu Glu Ala Pro Lys Val Cys Glu Ala Cys Lys Asn Lys Asn Asp
170 175 180

Asp Asp Asn Asp Ile Met Glu Thr Leu Cys Lys Asn Asp Phe Ala
185 190 195

Leu Lys Ile Lys Val Lys Glu Ile Thr Tyr Ile Asn Arg Asp Thr
200 205 210

Lys Ile Ile Leu Glu Thr Lys Ser Lys Thr Ile Tyr Lys Leu Asn
215 220 225

Gly Val Ser Glu Arg Asp Leu Lys Lys Ser Val Leu Trp Leu Lys
230 235 240

Asp Ser Leu Gln Cys Thr Cys Glu Glu Met Asn Asp Ile Asn Ala
245 250 255

Pro Tyr Leu Val Met Gly Gln Lys Gln Gly Gly Glu Leu Val Ile
260 265 270

Thr Ser Val Lys Arg Trp Gln Lys Gly Gln Arg Glu Phe Lys Arg
275 280 285

Ile Ser Arg Ser Ile Arg Lys Leu Gln Cys
290 295

<210> 416

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 416

cctggctcgc tgctgctgct c 21

<210> 417

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 417

cctcacaggt gcactgcaag ctgtc 25

<210> 418

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 418

ctcttcctct ttggccagcc cgacttctcc tacaaggcgca gaattgc 47

<210> 419

<211> 1830

<212> DNA

<213> Homo sapiens

<400> 419

gtggaggccg ccgacgatgg cggggccgac ggaggccgag acggggttgg 50

ccgagccccg ggcctgtgc gcgcagcggg gccaccgcac ctacgcgcgc 100

cgcgtgggtgt tcctgctcgc gatcagcctg ctcaactgct ccaacgccac 150

gctgtggctc agcttgcac ctgtggctga cgtcattgct gaggacttgg 200

tcctgtccat ggagcagatc aactggctgt cactggctta cctcgtggta 250

tccaccccat ttggcgtggc ggccatctgg atcctggact ccgtcgggct 300

ccgtgcggcg accatcctgg gtgcgtggct gaactttgcc gggagtgtgc 350

tacgcatggc gccctgcatg gttgttggaa cccaaaaccc atttgccttc 400

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cggccaacat gtcgccacc atgtcaacc ctctggcgt ctttgtggcc 550

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gctcggtgtc tataccatcc ctgctggcgt cgtctgcctg ctgtccacca 650

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gaacaaggcc tatgtcatcc tggctgtgtg cttggggggaa atgatcggga 800

tctctgccag cttctcagcc ctctggagc agatcctctg tgcaagcggc 850

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gggagcgaat tacaagcgcg cacctgaaaa 1830

<210> 420

<211> 560

<212> PRT

<213> Homo sapiens

<400> 420

Met Ala Gly Pro Thr Glu Ala Glu Thr Gly Leu Ala Glu Pro Arg
1 5 10 15

Ala Leu Cys Ala Gln Arg Gly His Arg Thr Tyr Ala Arg Arg Trp
20 25 30

Val Phe Leu Leu Ala Ile Ser Leu Leu Asn Cys Ser Asn Ala Thr
35 40 45

Leu Trp Leu Ser Phe Ala Pro Val Ala Asp Val Ile Ala Glu Asp
50 55 60

Leu Val Leu Ser Met Glu Gln Ile Asn Trp Leu Ser Leu Val Tyr
65 70 75

Leu Val Val Ser Thr Pro Phe Gly Val Ala Ala Ile Trp Ile Leu
80 85 90

Asp Ser Val Gly Leu Arg Ala Ala Thr Ile Leu Gly Ala Trp Leu
95 100 105

Asn Phe Ala Gly Ser Val Leu Arg Met Val Pro Cys Met Val Val

110	115	120
Gly Thr Gln Asn Pro Phe Ala Phe Leu Met	Gly Gly Gln Ser Leu	
125	130	135
Cys Ala Leu Ala Gln Ser Leu Val Ile Phe Ser Pro Ala Lys	Leu	
140	145	150
Ala Ala Leu Trp Phe Pro Glu His Gln Arg Ala Thr Ala Asn Met		
155	160	165
Leu Ala Thr Met Ser Asn Pro Leu Gly Val Leu Val Ala Asn Val		
170	175	180
Leu Ser Pro Val Leu Val Lys Lys Gly Glu Asp Ile Pro Leu Met		
185	190	195
Leu Gly Val Tyr Thr Ile Pro Ala Gly Val Val Cys Leu Leu Ser		
200	205	210
Thr Ile Cys Leu Trp Glu Ser Val Pro Pro Thr Pro Pro Ser Ala		
215	220	225
Gly Ala Ala Ser Ser Thr Ser Glu Lys Phe Leu Asp Gly Leu Lys		
230	235	240
Leu Gln Leu Met Trp Asn Lys Ala Tyr Val Ile Leu Ala Val Cys		
245	250	255
Leu Gly Gly Met Ile Gly Ile Ser Ala Ser Phe Ser Ala Leu Leu		
260	265	270
Glu Gln Ile Leu Cys Ala Ser Gly His Ser Ser Gly Phe Ser Gly		
275	280	285
Leu Cys Gly Ala Leu Phe Ile Thr Phe Gly Ile Leu Gly Ala Leu		
290	295	300
Ala Leu Gly Pro Tyr Val Asp Arg Thr Lys His Phe Thr Glu Ala		
305	310	315
Thr Lys Ile Gly Leu Cys Leu Phe Ser Leu Ala Cys Val Pro Phe		
320	325	330
Ala Leu Val Ser Gln Leu Gln Gly Gln Thr Leu Ala Leu Ala Ala		
335	340	345
Thr Cys Ser Leu Leu Gly Leu Phe Gly Phe Ser Val Gly Pro Val		
350	355	360
Ala Met Glu Leu Ala Val Glu Cys Ser Phe Pro Val Gly Glu Gly		
365	370	375
Ala Ala Thr Gly Met Ile Phe Val Leu Gly Gln Ala Glu Gly Ile		
380	385	390
Leu Ile Met Leu Ala Met Thr Ala Leu Thr Val Arg Arg Ser Glu		
395	400	405

Pro Ser Leu Ser Thr Cys Gln Gln Gly Glu Asp Pro Leu Asp Trp
410 415 420

Thr Val Ser Leu Leu Leu Met Ala Gly Leu Cys Thr Phe Phe Ser
425 430 435

Cys Ile Leu Ala Val Phe Phe His Thr Pro Tyr Arg Arg Leu Gln
440 445 450

Ala Glu Ser Gly Glu Pro Pro Ser Thr Arg Asn Ala Val Gly Gly
455 460 465

Ala Asp Ser Gly Pro Gly Val Asp Arg Gly Gly Ala Gly Arg Ala
470 475 480

Gly Val Leu Gly Pro Ser Thr Ala Thr Pro Glu Cys Thr Ala Arg
485 490 495

Gly Ala Ser Leu Glu Asp Pro Arg Gly Pro Gly Ser Pro His Pro
500 505 510

Ala Cys His Arg Ala Thr Pro Arg Ala Gln Gly Pro Ala Ala Thr
515 520 525

Asp Ala Pro Ser Arg Pro Gly Arg Leu Ala Gly Arg Val Gln Ala
530 535 540

Ser Arg Phe Ile Asp Pro Ala Gly Ser His Ser Ser Phe Ser Ser
545 550 555

Pro Trp Val Ile Thr
560

<210> 421
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 421
agcttctcag ccctcctgga gcag 24

<210> 422
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 422
cgggtaata aacctggacg cttgg 25

<210> 423
<211> 43
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 423

tatgtggacc ggaccaagca cttcaactgag gccaccaaga ttg 43

<210> 424

<211> 4313

<212> DNA

<213> Homo sapiens

<400> 424

gtccccacatc ctgctcaact gggtcaggtc cctcttagac cagctttgt 50

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tggcaatttct tgatcggtgt ttggacatct cagatcgctt ccaatgaaga 150

tggccttgcc ttggggtcct gcttggttca taatcatcta actatggac 200

aagggttgtgc cggcagctct gggggaaagga gcacgggct gatcaagcca 250

tccaggaaac actggaggac ttgtccagcc ttgaaagaac tctagtggtt 300

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<210> 425

<211> 1184

<212> PRT

<213> Homo sapiens

<400> 425

Met Met Gln Leu Leu Gln Leu Leu Leu Gly Leu Leu Gly Pro Gly
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20 25 30

Thr Val Lys Tyr Gln Val Ser Glu Glu Val Pro Ser Gly Thr Val
35 40 45

Ile Gly Lys Leu Ser Gln Glu Leu Gly Arg Glu Glu Arg Arg Arg
50 55 60

Gln Ala Gly Ala Ala Phe Gln Val Leu Gln Leu Pro Gln Ala Leu
65 70 75

Pro Ile Gln Val Asp Ser Glu Glu Gly Leu Leu Ser Thr Gly Arg
80 85 90

Arg Leu Asp Arg Glu Gln Leu Cys Arg Gln Trp Asp Pro Cys Leu
95 100 105

Val Ser Phe Asp Val Leu Ala Thr Gly Asp Leu Ala Leu Ile His
110 115 120

Val Glu Ile Gln Val Leu Asp Ile Asn Asp His Gln Pro Arg Phe
125 130 135

Pro Lys Gly Glu Gln Glu Leu Glu Ile Ser Glu Ser Ala Ser Leu
140 145 150

Arg Thr Arg Ile Pro Leu Asp Arg Ala Leu Asp Pro Asp Thr Gly
155 160 165

Pro Asn Thr Leu His Thr Tyr Thr Leu Ser Pro Ser Glu His Phe
170 175 180

Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr Lys His Ala Glu
185 190 195

Leu Ile Val Val Lys Glu Leu Asp Arg Glu Ile His Ser Phe Phe
200 205 210

Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro Lys Ser
215 220 225

Gly Thr Ser Leu Val Lys Val Asn Val Leu Asp Ser Asn Asp Asn
230 235 240

Ser Pro Ala Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Gln Glu
245 250 255

Asp Ala Ala Pro Gly Thr Leu Leu Ile Lys Leu Thr Ala Thr Asp
260 265 270

Pro Asp Gln Gly Pro Asn Gly Glu Val Glu Phe Phe Leu Ser Lys
275 280 285

His Met Pro Pro Glu Val Leu Asp Thr Phe Ser Ile Asp Ala Lys
290 295 300

Thr Gly Gln Val Ile Leu Arg Arg Pro Leu Asp Tyr Glu Lys Asn
305 310 315

Pro Ala Tyr Glu Val Asp Val Gln Ala Arg Asp Leu Gly Pro Asn
320 325 330

Pro Ile Pro Ala His Cys Lys Val Leu Ile Lys Val Leu Asp Val
335 340 345

Asn Asp Asn Ile Pro Ser Ile His Val Thr Trp Ala Ser Gln Pro
350 355 360

Ser Leu Val Ser Glu Ala Leu Pro Lys Asp Ser Phe Ile Ala Leu
365 370 375

Val Met Ala Asp Asp Leu Asp Ser Gly His Asn Gly Leu Val His
380 385 390

Cys Trp Leu Ser Gln Glu Leu Gly His Phe Arg Leu Lys Arg Thr
395 400 405

Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn Ala Thr Leu Asp Arg
410 415 420

Glu Gln Trp Pro Lys Tyr Thr Leu Thr Leu Leu Ala Gln Asp Gln
425 430 435

Gly Leu Gln Pro Leu Ser Ala Lys Lys Gln Leu Ser Ile Gln Ile
440 445 450

Ser Asp Ile Asn Asp Asn Ala Pro Val Phe Glu Lys Ser Arg Tyr
455 460 465

Glu Val Ser Thr Arg Glu Asn Asn Leu Pro Ser Leu His Leu Ile
470 475 480

Thr Ile Lys Ala His Asp Ala Asp Leu Gly Ile Asn Gly Lys Val

485	490	495
Ser Tyr Arg Ile Gln Asp Ser Pro Val Ala His Leu Val Ala Ile		
500	505	510
Asp Ser Asn Thr Gly Glu Val Thr Ala Gln Arg Ser Leu Asn Tyr		
515	520	525
Glu Glu Met Ala Gly Phe Glu Phe Gln Val Ile Ala Glu Asp Ser		
530	535	540
Gly Gln Pro Met Leu Ala Ser Ser Val Ser Val Trp Val Ser Leu		
545	550	555
Leu Asp Ala Asn Asp Asn Ala Pro Glu Val Val Gln Pro Val Leu		
560	565	570
Ser Asp Gly Lys Ala Ser Leu Ser Val Leu Val Asn Ala Ser Thr		
575	580	585
Gly His Leu Leu Val Pro Ile Glu Thr Pro Asn Gly Leu Gly Pro		
590	595	600
Ala Gly Thr Asp Thr Pro Pro Leu Ala Thr His Ser Ser Arg Pro		
605	610	615
Phe Leu Leu Thr Thr Ile Val Ala Arg Asp Ala Asp Ser Gly Ala		
620	625	630
Asn Gly Glu Pro Leu Tyr Ser Ile Arg Asn Gly Asn Glu Ala His		
635	640	645
Leu Phe Ile Leu Asn Pro His Thr Gly Gln Leu Phe Val Asn Val		
650	655	660
Thr Asn Ala Ser Ser Leu Ile Gly Ser Glu Trp Glu Leu Glu Ile		
665	670	675
Val Val Glu Asp Gln Gly Ser Pro Pro Leu Gln Thr Arg Ala Leu		
680	685	690
Leu Arg Val Met Phe Val Thr Ser Val Asp His Leu Arg Asp Ser		
695	700	705
Ala Arg Lys Pro Gly Ala Leu Ser Met Ser Met Leu Thr Val Ile		
710	715	720
Cys Leu Ala Val Leu Leu Gly Ile Phe Gly Leu Ile Leu Ala Leu		
725	730	735
Phe Met Ser Ile Cys Arg Thr Glu Lys Lys Asp Asn Arg Ala Tyr		
740	745	750
Asn Cys Arg Glu Ala Glu Ser Thr Tyr Arg Gln Gln Pro Lys Arg		
755	760	765
Pro Gln Lys His Ile Gln Lys Ala Asp Ile His Leu Val Pro Val		
770	775	780

Leu Arg Gly Gln Ala Gly Glu Pro Cys Glu Val Gly Gln Ser His
 785 790 795
 Lys Asp Val Asp Lys Glu Ala Met Met Glu Ala Gly Trp Asp Pro
 800 805 810
 Cys Leu Gln Ala Pro Phe His Leu Thr Pro Thr Leu Tyr Arg Thr
 815 820 825
 Leu Arg Asn Gln Gly Asn Gln Gly Ala Pro Ala Glu Ser Arg Glu
 830 835 840
 Val Leu Gln Asp Thr Val Asn Leu Leu Phe Asn His Pro Arg Gln
 845 850 855
 Arg Asn Ala Ser Arg Glu Asn Leu Asn Leu Pro Glu Pro Gln Pro
 860 865 870
 Ala Thr Gly Gln Pro Arg Ser Arg Pro Leu Lys Val Ala Gly Ser
 875 880 885
 Pro Thr Gly Arg Leu Ala Gly Asp Gln Gly Ser Glu Glu Ala Pro
 890 895 900
 Gln Arg Pro Pro Ala Ser Ser Ala Thr Leu Arg Arg Gln Arg His
 905 910 915
 Leu Asn Gly Lys Val Ser Pro Glu Lys Glu Ser Gly Pro Arg Gln
 920 925 930
 Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe Ala Glu
 935 940 945
 Arg Asn Pro Val Glu Glu Leu Thr Val Asp Ser Pro Pro Val Gln
 950 955 960
 Gln Ile Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln
 965 970 975
 Pro Lys Pro Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly
 980 985 990
 Gly Ser Arg Ser Ala Ile Pro Asp Thr Asp Gly Pro Ser Ala Arg
 995 1000 1005
 Ala Gly Gly Gln Thr Asp Pro Glu Gln Glu Glu Gly Pro Leu Asp
 1010 1015 1020
 Pro Glu Glu Asp Leu Ser Val Lys Gln Leu Leu Glu Glu Glu Leu
 1025 1030 1035
 Ser Ser Leu Leu Asp Pro Ser Thr Gly Leu Ala Leu Asp Arg Leu
 1040 1045 1050
 Ser Ala Pro Asp Pro Ala Trp Met Ala Arg Leu Ser Leu Pro Leu
 1055 1060 1065
 Thr Thr Asn Tyr Arg Asp Asn Val Ile Ser Pro Asp Ala Ala Ala

1070 1075 1080
Thr Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Ala Glu Ala
1085 1090 1095
Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val
1100 1105 1110
Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Glu Gln Arg Ser
1115 1120 1125
Ser Met Pro Val Glu Ala Ala Ser Glu Ala Leu Arg Arg Leu Ser
1130 1135 1140
Val Cys Gly Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Ala Ala
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Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser Arg Cys Leu
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<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 426
gtaaggcacat gcctccagag gtgc 24

<210> 427
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 427
tgacgtggc tgcttggat gttg 24

<210> 428
<211> 50
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 428
tggacacctt cagtattgat gccaagacag gccaggtcat tctgcgtcga 50
<210> 429
<211> 2037

<212> DNA
<213> Homo sapiens

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ggcctcgaaa agtgggaagt ggaggcagga gccttccta cacttcgcca 150
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tttggatttg ggtggctttt cttcatgcgc caattgttta aagactatga 250
gatacgtcag tatgttgtac aggtgatctt ctccgtgacg tttgcatttt 300
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agcagctccc gttattttca ctggaaaatg aacctgtgtg taattctgct 400
gatcctgggtt ttcatgggc cttttacat tggctatttt attgtgagca 450
atatccgact actgcataaaa caacgactgc tttttcctg tcttttatgg 500
ctgaccctta tgtatttctt ctggaaacta ggagatccct ttcccattct 550
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aaaaaaaaaa agggcggccg cgactctaga gtcgacctgc agaagcttgg 2000
ccgccatggc ccaacttgtt tattgcagct tataatg 2037

<210> 430

<211> 455

<212> PRT

<213> Homo sapiens

<400> 430

Met Ser Phe Leu Ile Asp Ser Ser Ile Met Ile Thr Ser Gln Ile
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Leu Phe Phe Gly Phe Gly Trp Leu Phe Phe Met Arg Gln Leu Phe
20 25 30

Lys Asp Tyr Glu Ile Arg Gln Tyr Val Val Gln Val Ile Phe Ser
35 40 45

Val Thr Phe Ala Phe Ser Cys Thr Met Phe Glu Leu Ile Ile Phe
50 55 60

Glu Ile Leu Gly Val Leu Asn Ser Ser Arg Tyr Phe His Trp
65 70 75

Lys Met Asn Leu Cys Val Ile Leu Leu Ile Leu Val Phe Met Val
80 85 90

Pro Phe Tyr Ile Gly Tyr Phe Ile Val Ser Asn Ile Arg Leu Leu
95 100 105

His Lys Gln Arg Leu Leu Phe Ser Cys Leu Leu Trp Leu Thr Phe
110 115 120

Met Tyr Phe Phe Trp Lys Leu Gly Asp Pro Phe Pro Ile Leu Ser
 125 130 135
 Pro Lys His Gly Ile Leu Ser Ile Glu Gln Leu Ile Ser Arg Val
 140 145 150
 Gly Val Ile Gly Val Thr Leu Met Ala Leu Leu Ser Gly Phe Gly
 155 160 165
 Ala Val Asn Cys Pro Tyr Thr Tyr Met Ser Tyr Phe Leu Arg Asn
 170 175 180
 Val Thr Asp Thr Asp Ile Leu Ala Leu Glu Arg Arg Leu Leu Gln
 185 190 195
 Thr Met Asp Met Ile Ile Ser Lys Lys Lys Arg Met Ala Met Ala
 200 205 210
 Arg Arg Thr Met Phe Gln Lys Gly Glu Val His Asn Lys Pro Ser
 215 220 225
 Gly Phe Trp Gly Met Ile Lys Ser Val Thr Thr Ser Ala Ser Gly
 230 235 240
 Ser Glu Asn Leu Thr Leu Ile Gln Gln Glu Val Asp Ala Leu Glu
 245 250 255
 Glu Leu Ser Arg Gln Leu Phe Leu Glu Thr Ala Asp Leu Tyr Ala
 260 265 270
 Thr Lys Glu Arg Ile Glu Tyr Ser Lys Thr Phe Lys Gly Lys Tyr
 275 280 285
 Phe Asn Phe Leu Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys
 290 295 300
 Ile Phe Met Ala Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys
 305 310 315
 Thr Asp Pro Val Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu
 320 325 330
 Gly Ile Gln Phe Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe
 335 340 345
 Ile Leu Val Gly Ile Ile Ile Val Thr Ser Ile Arg Gly Leu Leu
 350 355 360
 Ile Thr Leu Thr Lys Phe Phe Tyr Ala Ile Ser Ser Ser Lys Ser
 365 370 375
 Ser Asn Val Ile Val Leu Leu Leu Ala Gln Ile Met Gly Met Tyr
 380 385 390
 Phe Val Ser Ser Val Leu Leu Ile Arg Met Ser Met Pro Leu Glu
 395 400 405
 Tyr Arg Thr Ile Ile Thr Glu Val Leu Gly Glu Leu Gln Phe Asn

410

415

420

Phe Tyr His Arg Trp Phe Asp Val Ile Phe Leu Val Ser Ala Leu
425 430 435

Ser Ser Ile Leu Phe Leu Tyr Leu Ala His Lys Gln Ala Pro Glu
440 445 450

Lys Gln Met Ala Pro
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<210> 431

<211> 407

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 78, 81, 113, 157, 224, 297

<223> unknown base

<400> 431

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tcgactccag catcatgatt acctccnga nactatttt tggatttggg 100

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ttgtacnggt gatcttctcc gtgacgttg ccatttctt caccatgtt 200

gagctcatca tctttgaaat cttnnaggta ttgaatagca gctcccgta 250

ttttcactgg aaaatgaacc tgtgtgtaat tctgctgatc ctggttntca 300

tggtgccttt ttacattggc tattttattt tgagcaatat ccgactactg 350

cataaaacaac gactgctttt ttcctgtctc ttatggctga cctttatgta 400

tttccag 407

<210> 432

<211> 457

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 31, 66, 81-82, 84, 122, 184, 187, 232, 241, 400, 424, 427, 434

<223> unknown base

<400> 432

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gccaaagggtt tctttnttga attccgggtt nnngnataacct tcccagaaaa 100

tattttttgg atttgggtt gnttttttc atgcgc当地 tggtaaaga 150

ctatgagata cgtcagtatg ttgtacaggt gatnttntcc gtgacgttg 200

cattttcttg caccatgtt gagctcatca ntnttgaat nttaggagta 250
ttgaatacgca gctcccgta ttttcactgg aaaatgaacc tgtgtgtaat 300
tctgctgatc ctgggtttca tggtgcctt ttacattggc tattttattg 350
tgagcaatat ccgactactg cataacaac gactgcttt ttcctgtctn 400
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catttctc 457

<210> 433
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 433
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<210> 434
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 434
tcgttgttta tgcagtagtc gg 22

<210> 435
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 435
attgttaaa gactatgaga tacgtcagta tggtgtacag g 41

<210> 436
<211> 3951
<212> DNA
<213> Homo sapiens

<400> 436
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ttctcacggg ctgtcgccctt caatctggac gtgatgggtg ccttgcgcaa 150
ggaggcgcag ccaggcagcc tcttcggctt ctctgtggcc ctgcaccggc 200

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gagctgatat gcaaaaggaa agcaaggaga accagtggtt gggagtcagt 400
gttcggagcc aggggcctgg gggcaagatt gttacctgtg cacaccgata 450
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a 3951

<210> 437
<211> 1141
<212> PRT
<213> Homo sapiens

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Ala Val Ala Phe Asn Leu Asp Val Met Gly Ala Leu Arg Lys Glu
35 40 45
Gly Glu Pro Gly Ser Leu Phe Gly Phe Ser Val Ala Leu His Arg
50 55 60
Gln Leu Gln Pro Arg Pro Gln Ser Trp Leu Leu Val Gly Ala Pro
65 70 75
Gln Ala Leu Ala Leu Pro Gly Gln Ala Asn Arg Thr Gly Gly

80	85	90
Leu Phe Ala Cys Pro Leu Ser Leu Glu Glu Thr Asp Cys Tyr Arg		
95	100	105
Val Asp Ile Asp Gln Gly Ala Asp Met Gln Lys Glu Ser Lys Glu		
110	115	120
Asn Gln Trp Leu Gly Val Ser Val Arg Ser Gln Gly Pro Gly Gly		
125	130	135
Lys Ile Val Thr Cys Ala His Arg Tyr Glu Ala Arg Gln Arg Val		
140	145	150
Asp Gln Ile Leu Glu Thr Arg Asp Met Ile Gly Arg Cys Phe Val		
155	160	165
Leu Ser Gln Asp Leu Ala Ile Arg Asp Glu Leu Asp Gly Gly Glu		
170	175	180
Trp Lys Phe Cys Glu Gly Arg Pro Gln Gly His Glu Gln Phe Gly		
185	190	195
Phe Cys Gln Gln Gly Thr Ala Ala Ala Phe Ser Pro Asp Ser His		
200	205	210
Tyr Leu Leu Phe Gly Ala Pro Gly Thr Tyr Asn Trp Lys Gly Thr		
215	220	225
Ala Arg Val Glu Leu Cys Ala Gln Gly Ser Ala Asp Leu Ala His		
230	235	240
Leu Asp Asp Gly Pro Tyr Glu Ala Gly Gly Glu Lys Glu Gln Asp		
245	250	255
Pro Arg Leu Ile Pro Val Pro Ala Asn Ser Tyr Phe Gly Phe Ser		
260	265	270
Ile Asp Ser Gly Lys Gly Leu Val Arg Ala Glu Glu Leu Ser Phe		
275	280	285
Val Ala Gly Ala Pro Arg Ala Asn His Lys Gly Ala Val Val Ile		
290	295	300
Leu Arg Lys Asp Ser Ala Ser Arg Leu Val Pro Glu Val Met Leu		
305	310	315
Ser Gly Glu Arg Leu Thr Ser Gly Phe Gly Tyr Ser Leu Ala Val		
320	325	330
Ala Asp Leu Asn Ser Asp Gly Trp Pro Asp Leu Ile Val Gly Ala		
335	340	345
Pro Tyr Phe Phe Glu Arg Gln Glu Glu Leu Gly Gly Ala Val Tyr		
350	355	360
Val Tyr Leu Asn Gln Gly Gly His Trp Ala Gly Ile Ser Pro Leu		
365	370	375

Arg Leu Cys Gly Ser Pro Asp Ser Met Phe Gly Ile Ser Leu Ala
380 385 390

Val Leu Gly Asp Leu Asn Gln Asp Gly Phe Pro Asp Ile Ala Val
395 400 405

Gly Ala Pro Phe Asp Gly Asp Gly Lys Val Phe Ile Tyr His Gly
410 415 420

Ser Ser Leu Gly Val Val Ala Lys Pro Ser Gln Val Leu Glu Gly
425 430 435

Glu Ala Val Gly Ile Lys Ser Phe Gly Tyr Ser Leu Ser Gly Ser
440 445 450

Leu Asp Met Asp Gly Asn Gln Tyr Pro Asp Leu Leu Val Gly Ser
455 460 465

Leu Ala Asp Thr Ala Val Leu Phe Arg Ala Arg Pro Ile Leu His
470 475 480

Val Ser His Glu Val Ser Ile Ala Pro Arg Ser Ile Asp Leu Glu
485 490 495

Gln Pro Asn Cys Ala Gly Gly His Ser Val Cys Val Asp Leu Arg
500 505 510

Val Cys Phe Ser Tyr Ile Ala Val Pro Ser Ser Tyr Ser Pro Thr
515 520 525

Val Ala Leu Asp Tyr Val Leu Asp Ala Asp Thr Asp Arg Arg Leu
530 535 540

Arg Gly Gln Val Pro Arg Val Thr Phe Leu Ser Arg Asn Leu Glu
545 550 555

Glu Pro Lys His Gln Ala Ser Gly Thr Val Trp Leu Lys His Gln
560 565 570

His Asp Arg Val Cys Gly Asp Ala Met Phe Gln Leu Gln Glu Asn
575 580 585

Val Lys Asp Lys Leu Arg Ala Ile Val Val Thr Leu Ser Tyr Ser
590 595 600

Leu Gln Thr Pro Arg Leu Arg Arg Gln Ala Pro Gly Gln Gly Leu
605 610 615

Pro Pro Val Ala Pro Ile Leu Asn Ala His Gln Pro Ser Thr Gln
620 625 630

Arg Ala Glu Ile His Phe Leu Lys Gln Gly Cys Gly Glu Asp Lys
635 640 645

Ile Cys Gln Ser Asn Leu Gln Leu Val His Ala Arg Phe Cys Thr
650 655 660

Arg Val Ser Asp Thr Glu Phe Gln Pro Leu Pro Met Asp Val Asp

665	670	675
Gly Thr Thr Ala Leu Phe Ala Leu Ser Gly Gln Pro Val Ile Gly		
680	685	690
Leu Glu Leu Met Val Thr Asn Leu Pro Ser Asp Pro Ala Gln Pro		
695	700	705
Gln Ala Asp Gly Asp Asp Ala His Glu Ala Gln Leu Leu Val Met		
710	715	720
Leu Pro Asp Ser Leu His Tyr Ser Gly Val Arg Ala Leu Asp Pro		
725	730	735
Ala Glu Lys Pro Leu Cys Leu Ser Asn Glu Asn Ala Ser His Val		
740	745	750
Glu Cys Glu Leu Gly Asn Pro Met Lys Arg Gly Ala Gln Val Thr		
755	760	765
Phe Tyr Leu Ile Leu Ser Thr Ser Gly Ile Ser Ile Glu Thr Thr		
770	775	780
Glu Leu Glu Val Glu Leu Leu Leu Ala Thr Ile Ser Glu Gln Glu		
785	790	795
Leu His Pro Val Ser Ala Arg Ala Arg Val Phe Ile Glu Leu Pro		
800	805	810
Leu Ser Ile Ala Gly Met Ala Ile Pro Gln Gln Leu Phe Phe Ser		
815	820	825
Gly Val Val Arg Gly Glu Arg Ala Met Gln Ser Glu Arg Asp Val		
830	835	840
Gly Ser Lys Val Lys Tyr Glu Val Thr Val Ser Asn Gln Gly Gln		
845	850	855
Ser Leu Arg Thr Leu Gly Ser Ala Phe Leu Asn Ile Met Trp Pro		
860	865	870
His Glu Ile Ala Asn Gly Lys Trp Leu Leu Tyr Pro Met Gln Val		
875	880	885
Glu Leu Glu Gly Gly Gln Gly Pro Gly Gln Lys Gly Leu Cys Ser		
890	895	900
Pro Arg Pro Asn Ile Leu His Leu Asp Val Asp Ser Arg Asp Arg		
905	910	915
Arg Arg Arg Glu Leu Glu Pro Pro Glu Gln Gln Glu Pro Gly Glu		
920	925	930
Arg Gln Glu Pro Ser Met Ser Trp Trp Pro Val Ser Ser Ala Glu		
935	940	945
Lys Lys Lys Asn Ile Thr Leu Asp Cys Ala Arg Gly Thr Ala Asn		
950	955	960

Cys Val Val Phe Ser Cys Pro Leu Tyr Ser Phe Asp Arg Ala Ala
965 970 975

Val Leu His Val Trp Gly Arg Leu Trp Asn Ser Thr Phe Leu Glu
980 985 990

Glu Tyr Ser Ala Val Lys Ser Leu Glu Val Ile Val Arg Ala Asn
995 1000 1005

Ile Thr Val Lys Ser Ser Ile Lys Asn Leu Met Leu Arg Asp Ala
1010 1015 1020

Ser Thr Val Ile Pro Val Met Val Tyr Leu Asp Pro Met Ala Val
1025 1030 1035

Val Ala Glu Gly Val Pro Trp Trp Val Ile Leu Leu Ala Val Leu
1040 1045 1050

Ala Gly Leu Leu Val Leu Ala Leu Leu Val Leu Leu Leu Trp Lys
1055 1060 1065

Met Gly Phe Phe Lys Arg Ala Lys His Pro Glu Ala Thr Val Pro
1070 1075 1080

Gln Tyr His Ala Val Lys Ile Pro Arg Glu Asp Arg Gln Gln Phe
1085 1090 1095

Lys Glu Glu Lys Thr Gly Thr Ile Leu Arg Asn Asn Trp Gly Ser
1100 1105 1110

Pro Arg Arg Glu Gly Pro Asp Ala His Pro Ile Leu Ala Ala Asp
1115 1120 1125

Gly His Pro Glu Leu Gly Pro Asp Gly His Pro Gly Pro Gly Thr
1130 1135 1140

Ala

<210> 438
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 438
ggctgacacc gcagtgcct tcag 24

<210> 439
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<213> Artificial Sequence

<220>
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<400> 439
gctgctgggg actgcaatgt agct 24

<210> 440
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<212> DNA
<213> Artificial Sequence

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<400> 440
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<210> 441
<211> 1964
<212> DNA
<213> Homo sapiens

<400> 441
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ggagctgcga gcacagtgtc ggctcacaac aagatgctca aggtgtcagc 150
cgtactgtgt gtgtgtgcag ccgcttggtg cagtcagtc ttcgcagctg 200
ccgcggcggt ggctgcagcc gggggcggt cggacggcggt taattttctg 250
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aaaaaaaaaaa aaaa 1964

<210> 442
<211> 436
<212> PRT
<213> *Homo sapiens*

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   20          25          30

Gly Arg Ser Asp Gly Gly Asn Phe Leu Asp Asp Lys Gln Trp Leu
   35          40          45

Thr Thr Ile Ser Gln Tyr Asp Lys Glu Val Gly Gln Trp Asn Lys

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65	70	75
Gly Lys Pro Phe Asp Gln Ala Leu Asp Pro Ala Lys Asp Pro Cys		
80	85	90
Leu Lys Met Lys Cys Ser Arg His Lys Val Cys Ile Ala Gln Asp		
95	100	105
Ser Gln Thr Ala Val Cys Ile Ser His Arg Arg Leu Thr His Arg		
110	115	120
Met Lys Glu Ala Gly Val Asp His Arg Gln Trp Arg Gly Pro Ile		
125	130	135
Leu Ser Thr Cys Lys Gln Cys Pro Val Val Tyr Pro Ser Pro Val		
140	145	150
Cys Gly Ser Asp Gly His Thr Tyr Ser Phe Gln Cys Lys Leu Glu		
155	160	165
Tyr Gln Ala Cys Val Leu Gly Lys Gln Ile Ser Val Lys Cys Glu		
170	175	180
Gly His Cys Pro Cys Pro Ser Asp Lys Pro Thr Ser Thr Ser Arg		
185	190	195
Asn Val Lys Arg Ala Cys Ser Asp Leu Glu Phe Arg Glu Val Ala		
200	205	210
Asn Arg Leu Arg Asp Trp Phe Lys Ala Leu His Glu Ser Gly Ser		
215	220	225
Gln Asn Lys Lys Thr Lys Thr Leu Leu Arg Pro Glu Arg Ser Arg		
230	235	240
Phe Asp Thr Ser Ile Leu Pro Ile Cys Lys Asp Ser Leu Gly Trp		
245	250	255
Met Phe Asn Arg Leu Asp Thr Asn Tyr Asp Leu Leu Asp Gln		
260	265	270
Ser Glu Leu Arg Ser Ile Tyr Leu Asp Lys Asn Glu Gln Cys Thr		
275	280	285
Lys Ala Phe Phe Asn Ser Cys Asp Thr Tyr Lys Asp Ser Leu Ile		
290	295	300
Ser Asn Asn Glu Trp Cys Tyr Cys Phe Gln Arg Gln Gln Asp Pro		
305	310	315
Pro Cys Gln Thr Glu Leu Ser Asn Ile Gln Lys Arg Gln Gly Val		
320	325	330
Lys Lys Leu Leu Gly Gln Tyr Ile Pro Leu Cys Asp Glu Asp Gly		
335	340	345

Tyr Tyr Lys Pro Thr Gln Cys His Gly Ser Val Gly Gln Cys Trp
350 355 360

Cys Val Asp Arg Tyr Gly Asn Glu Val Met Gly Ser Arg Ile Asn
365 370 375

Gly Val Ala Asp Cys Ala Ile Asp Phe Glu Ile Ser Gly Asp Phe
380 385 390

Ala Ser Gly Asp Phe His Glu Trp Thr Asp Asp Glu Asp Asp Glu
395 400 405

Asp Asp Ile Met Asn Asp Glu Asp Glu Ile Glu Asp Asp Asp Glu
410 415 420

Asp Glu Gly Asp Asp Asp Gly Gly Asp Asp His Asp Val Tyr
425 430 435

Ile

<210> 443
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 443
cagcaatatt cagaaggcgc aagg 25

<210> 444
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 444
catcatggtc atcaccacca tcatcatc 28

<210> 445
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 445
ggttactaca agccaaacaca atgtcatggc agtgttggac agtgctgg 48

<210> 446
<211> 3617
<212> DNA
<213> Homo sapiens

<400> 446

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gctctgcctc cggtgctgct gcctggggcg gccggcttca cacctccct 200
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<211> 229

<212> PRT

<213> Homo sapiens

<400> 447

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Ala	Leu	Pro	Pro	Val	Leu	Leu	Pro	Gly	Ala	Ala	Gly	Phe	Thr	Pro
				20				25					30	

Ser	Leu	Asp	Ser	Asp	Phe	Thr	Phe	Thr	Leu	Pro	Ala	Gly	Gln	Lys
					35			40					45	

Glu	Cys	Phe	Tyr	Gln	Pro	Met	Pro	Leu	Lys	Ala	Ser	Leu	Glu	Ile
					50			55					60	

Glu	Tyr	Gln	Val	Leu	Asp	Gly	Ala	Gly	Leu	Asp	Ile	Asp	Phe	His
				65				70					75	

Leu	Ala	Ser	Pro	Glu	Gly	Lys	Thr	Leu	Val	Phe	Glu	Gln	Arg	Lys
				80				85					90	

Ser	Asp	Gly	Val	His	Thr	Val	Glu	Thr	Glu	Val	Gly	Asp	Tyr	Met
				95				100					105	

Phe Cys Phe Asp Asn Thr Phe Ser Thr Ile Ser Glu Lys Val Ile

110 115 120
Phe Phe Glu Leu Ile Leu Asp Asn Met Gly Glu Gln Ala Gln Glu
125 130 135
Gln Glu Asp Trp Lys Lys Tyr Ile Thr Gly Thr Asp Ile Leu Asp
140 145 150
Met Lys Leu Glu Asp Ile Leu Glu Ser Ile Asn Ser Ile Lys Ser
155 160 165
Arg Leu Ser Lys Ser Gly His Ile Gln Ile Leu Leu Arg Ala Phe
170 175 180
Glu Ala Arg Asp Arg Asn Ile Gln Glu Ser Asn Phe Asp Arg Val
185 190 195
Asn Phe Trp Ser Met Val Asn Leu Val Val Met Val Val Ser
200 205 210
Ala Ile Gln Val Tyr Met Leu Lys Ser Leu Phe Glu Asp Lys Arg
215 220 225
Lys Ser Arg Thr

<210> 448

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 448

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<210> 449

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 449

gtcttccagt ttcatatcca ata 23

<210> 450

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 450

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<210> 451
<211> 859
<212> DNA
<213> Homo sapiens

<400> 451
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tcaggttcaa ggtgaagaaa cccagaagga actgccctct ccacggatca 200
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aaaaaaaaaa 859

<210> 452
<211> 175
<212> PRT
<213> Homo sapiens

<400> 452
Met Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu
1 5 10 15
Ser Cys Leu Ile Leu Leu Cys Gln Val Gln Gly Glu Glu Thr Gln
20 25 30
Lys Glu Leu Pro Ser Pro Arg Ile Ser Cys Pro Lys Gly Ser Lys
35 40 45
Ala Tyr Gly Ser Pro Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser

50	55	60
Trp Met Asp Ala Asp Leu Ala Cys Gln Lys Arg Pro Ser Gly Lys		
65	70	75
Leu Val Ser Val Leu Ser Gly Ala Glu Gly Ser Phe Val Ser Ser		
80	85	90
Leu Val Arg Ser Ile Ser Asn Ser Tyr Ser Tyr Ile Trp Ile Gly		
95	100	105
Leu His Asp Pro Thr Gln Gly Ser Glu Pro Asp Gly Asp Gly Trp		
110	115	120
Glu Trp Ser Ser Thr Asp Val Met Asn Tyr Phe Ala Trp Glu Lys		
125	130	135
Asn Pro Ser Thr Ile Leu Asn Pro Gly His Cys Gly Ser Leu Ser		
140	145	150
Arg Ser Thr Gly Phe Leu Lys Trp Lys Asp Tyr Asn Cys Asp Ala		
155	160	165
Lys Leu Pro Tyr Val Cys Lys Phe Lys Asp		
170	175	

<210> 453

<211> 550

<212> DNA

<213> Homo sapiens

<400> 453

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tctgaacagc ctccactgctc gggccctcac gctcctccca ctcttgagcc 450
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<210> 454

<211> 125

<212> PRT

<213> Homo sapiens

<400> 454

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Cys	Gly	Glu	Leu	Ala	Pro	Ala	Leu	Arg	Cys	Tyr	Val	Cys	Pro	Glu
		20						25					30	
Pro	Thr	Gly	Val	Ser	Asp	Cys	Val	Thr	Ile	Ala	Thr	Cys	Thr	Thr
				35				40					45	
Asn	Glu	Thr	Met	Cys	Lys	Thr	Thr	Leu	Tyr	Ser	Arg	Glu	Ile	Val
			50					55					60	
Tyr	Pro	Phe	Gln	Gly	Asp	Ser	Thr	Val	Thr	Lys	Ser	Cys	Ala	Ser
			65					70					75	
Lys	Cys	Lys	Pro	Ser	Asp	Val	Asp	Gly	Ile	Gly	Gln	Thr	Leu	Pro
			80					85					90	
Val	Ser	Cys	Cys	Asn	Thr	Glu	Leu	Cys	Asn	Val	Asp	Gly	Ala	Pro
			95					100					105	
Ala	Leu	Asn	Ser	Leu	His	Cys	Gly	Ala	Leu	Thr	Leu	Leu	Pro	Leu
			110					115					120	
Leu	Ser	Leu	Arg	Leu										
			125											

<210> 455

<211> 1518

<212> DNA

<213> Homo sapiens

<400> 455

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<210> 456

<211> 266

<212> PRT

<213> Homo sapiens

<400> 456

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20 25 30

Ala Thr Leu Asn Ser Val Leu Asn Ser Asn Ala Ile Lys Asn Leu
35 40 45

Pro Pro Pro Leu Gly Gly Ala Ala Gly His Pro Gly Ser Ala Val
50 55 60

Ser Ala Ala Pro Gly Ile Leu Tyr Pro Gly Gly Asn Lys Tyr Gln
65 70 75

Thr	Ile	Asp	Asn	Tyr	Gln	Pro	Tyr	Pro	Cys	Ala	Glu	Asp	Glu	Glu
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Cys	Gly	Thr	Asp	Glu	Tyr	Cys	Ala	Ser	Pro	Thr	Arg	Gly	Gly	Asp
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Ala	Gly	Val	Gln	Ile	Cys	Leu	Ala	Cys	Arg	Lys	Arg	Arg	Lys	Arg
				110				115			120			
Cys	Met	Arg	His	Ala	Met	Cys	Cys	Pro	Gly	Asn	Tyr	Cys	Lys	Asn
				125				130			135			
Gly	Ile	Cys	Val	Ser	Ser	Asp	Gln	Asn	His	Phe	Arg	Gly	Glu	Ile
				140				145			150			
Glu	Glu	Thr	Ile	Thr	Glu	Ser	Phe	Gly	Asn	Asp	His	Ser	Thr	Leu
				155				160			165			
Asp	Gly	Tyr	Ser	Arg	Arg	Thr	Thr	Leu	Ser	Ser	Lys	Met	Tyr	His
				170				175			180			
Thr	Lys	Gly	Gln	Glu	Gly	Ser	Val	Cys	Leu	Arg	Ser	Ser	Asp	Cys
				185				190			195			
Ala	Ser	Gly	Leu	Cys	Cys	Ala	Arg	His	Phe	Trp	Ser	Lys	Ile	Cys
				200				205			210			
Lys	Pro	Val	Leu	Lys	Glu	Gly	Gln	Val	Cys	Thr	Lys	His	Arg	Arg
				215				220			225			
Lys	Gly	Ser	His	Gly	Leu	Glu	Ile	Phe	Gln	Arg	Cys	Tyr	Cys	Gly
				230				235			240			
Glu	Gly	Leu	Ser	Cys	Arg	Ile	Gln	Lys	Asp	His	His	Gln	Ala	Ser
				245				250			255			
Asn	Ser	Ser	Arg	Leu	His	Thr	Cys	Gln	Arg	His				
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<210> 457

<211> 638

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 30, 123, 133, 139, 180, 214, 259, 282, 308, 452, 467, 471, 473,
509, 556

<223> unknown base

<400> 457

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<211> 4040
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<211> 747
<212> PRT
<213> Homo sapiens

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Gly Thr Asp Gln Asp Phe Tyr Ser Leu Leu Gly Val Ser Lys Thr
35 40 45
Ala Ser Ser Arg Glu Ile Arg Gln Ala Phe Lys Lys Leu Ala Leu
50 55 60
Lys Leu His Pro Asp Lys Asn Pro Asn Asn Pro Asn Ala His Gly
65 70 75
Asp Phe Leu Lys Ile Asn Arg Ala Tyr Glu Val Leu Lys Asp Glu
80 85 90
Asp Leu Arg Lys Lys Tyr Asp Lys Tyr Gly Glu Lys Gly Leu Glu
95 100 105
Asp Asn Gln Gly Gln Tyr Glu Ser Trp Asn Tyr Tyr Arg Tyr
110 115 120
Asp Phe Gly Ile Tyr Asp Asp Pro Glu Ile Ile Thr Leu Glu
125 130 135
Arg Arg Glu Phe Asp Ala Ala Val Asn Ser Gly Glu Leu Trp Phe
140 145 150
Val Asn Phe Tyr Ser Pro Gly Cys Ser His Cys His Asp Leu Ala
155 160 165
Pro Thr Trp Arg Asp Phe Ala Lys Glu Val Asp Gly Leu Leu Arg
170 175 180
Ile Gly Ala Val Asn Cys Gly Asp Asp Arg Met Leu Cys Arg Met
185 190 195
Lys Gly Val Asn Ser Tyr Pro Ser Leu Phe Ile Phe Arg Ser Gly

200	205	210
Met Ala Pro Val Lys Tyr His Gly Asp Arg Ser Lys Glu Ser Leu		
215	220	225
Val Ser Phe Ala Met Gln His Val Arg Ser Thr Val Thr Glu Leu		
230	235	240
Trp Thr Gly Asn Phe Val Asn Ser Ile Gln Thr Ala Phe Ala Ala		
245	250	255
Gly Ile Gly Trp Leu Ile Thr Phe Cys Ser Lys Gly Gly Asp Cys		
260	265	270
Leu Thr Ser Gln Thr Arg Leu Arg Leu Ser Gly Met Leu Phe Leu		
275	280	285
Asn Ser Leu Asp Ala Lys Glu Ile Tyr Leu Glu Val Ile His Asn		
290	295	300
Leu Pro Asp Phe Glu Leu Leu Ser Ala Asn Thr Leu Glu Asp Arg		
305	310	315
Leu Ala His His Arg Trp Leu Leu Phe Phe His Phe Gly Lys Asn		
320	325	330
Glu Asn Ser Asn Asp Pro Glu Leu Lys Lys Leu Lys Thr Leu Leu		
335	340	345
Lys Asn Asp His Ile Gln Val Gly Arg Phe Asp Cys Ser Ser Ala		
350	355	360
Pro Asp Ile Cys Ser Asn Leu Tyr Val Phe Gln Pro Ser Leu Ala		
365	370	375
Val Phe Lys Gly Gln Gly Thr Lys Glu Tyr Glu Ile His His Gly		
380	385	390
Lys Lys Ile Leu Tyr Asp Ile Leu Ala Phe Ala Lys Glu Ser Val		
395	400	405
Asn Ser His Val Thr Thr Leu Gly Pro Gln Asn Phe Pro Ala Asn		
410	415	420
Asp Lys Glu Pro Trp Leu Val Asp Phe Phe Ala Pro Trp Cys Pro		
425	430	435
Pro Cys Arg Ala Leu Leu Pro Glu Leu Arg Arg Ala Ser Asn Leu		
440	445	450
Leu Tyr Gly Gln Leu Lys Phe Gly Thr Leu Asp Cys Thr Val His		
455	460	465
Glu Gly Leu Cys Asn Met Tyr Asn Ile Gln Ala Tyr Pro Thr Thr		
470	475	480
Val Val Phe Asn Gln Ser Asn Ile His Glu Tyr Glu Gly His His		
485	490	495

Ser Ala Glu Gln Ile Leu Glu Phe Ile Glu Asp Leu Met Asn Pro
500 505 510

Ser Val Val Ser Leu Thr Pro Thr Thr Phe Asn Glu Leu Val Thr
515 520 525

Gln Arg Lys His Asn Glu Val Trp Met Val Asp Phe Tyr Ser Pro
530 535 540

Trp Cys His Pro Cys Gln Val Leu Met Pro Glu Trp Lys Arg Met
545 550 555

Ala Arg Thr Leu Thr Gly Leu Ile Asn Val Gly Ser Ile Asp Cys
560 565 570

Gln Gln Tyr His Ser Phe Cys Ala Gln Glu Asn Val Gln Arg Tyr
575 580 585

Pro Glu Ile Arg Phe Phe Pro Pro Lys Ser Asn Lys Ala Tyr Gln
590 595 600

Tyr His Ser Tyr Asn Gly Trp Asn Arg Asp Ala Tyr Ser Leu Arg
605 610 615

Ile Trp Gly Leu Gly Phe Leu Pro Gln Val Ser Thr Asp Leu Thr
620 625 630

Pro Gln Thr Phe Ser Glu Lys Val Leu Gln Gly Lys Asn His Trp
635 640 645

Val Ile Asp Phe Tyr Ala Pro Trp Cys Gly Pro Cys Gln Asn Phe
650 655 660

Ala Pro Glu Phe Glu Leu Leu Ala Arg Met Ile Lys Gly Lys Val
665 670 675

Lys Ala Gly Lys Val Asp Cys Gln Ala Tyr Ala Gln Thr Cys Gln
680 685 690

Lys Ala Gly Ile Arg Ala Tyr Pro Thr Val Lys Phe Tyr Phe Tyr
695 700 705

Glu Arg Ala Lys Arg Asn Phe Gln Glu Glu Gln Ile Asn Thr Arg
710 715 720

Asp Ala Lys Ala Ile Ala Ala Leu Ile Ser Glu Lys Leu Glu Thr
725 730 735

Leu Arg Asn Gln Gly Lys Arg Asn Lys Asp Glu Leu
740 745

<210> 460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 460
actccccagg ctgttcacac tgcc 24

<210> 461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 461
gatcagccag ccaataccag cagc 24

<210> 462
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 462
gtgggtatga tagaatgott tgccgaatga aaggagtcaa cagctatccc 50

<210> 463
<211> 1818
<212> DNA
<213> Homo sapiens

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caccatcatc tactcctact tggagtcgtt ggtgaagttt ttcattcctc 150
agaggagaaa atctgtggct ggggagattt ttctcattttc tggagctggg 200
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aacagagaag agatctatcg ctctctaaat caggtgaaga aagaagtg 400
tgc当地aca atcgtggta ataatgctgg gacagtataat ccagccgatc 450
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cacagaggctc tgacatcaga acttcaggcc ttggaaaaaa ctggtatcaa 700

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<210> 464
<211> 300
<212> PRT
<213> Homo sapiens

<400> 464
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Tyr Ser Tyr Leu Glu Ser Leu Val Lys Phe Phe Ile Pro Gln Arg
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Arg	Lys	Ser	Val	Ala	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly
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His	Gly	Ile	Gly	Arg	Gln	Thr	Thr	Tyr	Glu	Phe	Ala	Lys	Arg	Gln
				50					55					60
Ser	Ile	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	Arg	Gly	Val	Glu	Glu
				65					70					75
Thr	Ala	Ala	Glu	Cys	Arg	Lys	Leu	Gly	Val	Thr	Ala	His	Ala	Tyr
				80					85					90
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Glu	Ile	Tyr	Arg	Ser	Leu	Asn
				95					100					105
Gln	Val	Lys	Lys	Glu	Val	Gly	Asp	Val	Thr	Ile	Val	Val	Asn	Asn
				110					115					120
Ala	Gly	Thr	Val	Tyr	Pro	Ala	Asp	Leu	Leu	Ser	Thr	Lys	Asp	Glu
				125					130					135
Glu	Ile	Thr	Lys	Thr	Phe	Glu	Val	Asn	Ile	Leu	Gly	His	Phe	Trp
				140					145					150
Ile	Thr	Lys	Ala	Leu	Leu	Pro	Ser	Met	Met	Glu	Arg	Asn	His	Gly
				155					160					165
His	Ile	Val	Thr	Val	Ala	Ser	Val	Cys	Gly	His	Glu	Gly	Ile	Pro
				170					175					180
Tyr	Leu	Ile	Pro	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe
				185					190					195
His	Arg	Gly	Leu	Thr	Ser	Glu	Leu	Gln	Ala	Leu	Gly	Lys	Thr	Gly
				200					205					210
Ile	Lys	Thr	Ser	Cys	Leu	Cys	Pro	Val	Phe	Val	Asn	Thr	Gly	Phe
				215					220					225
Thr	Lys	Asn	Pro	Ser	Thr	Arg	Leu	Trp	Pro	Val	Leu	Glu	Thr	Asp
				230					235					240
Glu	Val	Val	Arg	Ser	Leu	Ile	Asp	Gly	Ile	Leu	Thr	Asn	Lys	Lys
				245					250					255
Met	Ile	Phe	Val	Pro	Ser	Tyr	Ile	Asn	Ile	Phe	Leu	Arg	Leu	Gln
				260					265					270
Lys	Phe	Leu	Pro	Glu	Arg	Ala	Ser	Ala	Ile	Leu	Asn	Arg	Met	Gln
				275					280					285
Asn	Ile	Gln	Phe	Glu	Ala	Val	Val	Gly	His	Lys	Ile	Lys	Met	Lys
				290					295					300

<210> 465

<211> 1547

<212> DNA

<213> Homo sapiens

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gagagggccc agcccgcccc gggcaggatg accaaggccc ggctgttccg 150
gctgtggctg gtgctgggtt cgggtttcat gatcctgctg atcatcggt 200
actggacag cgcaggcgcc gcgcacttct acttgacacac gtccttctct 250
aggccgcaca cggggccgccc gctgcccacg cccgggcccc acagggacag 300
ggagactcacg gccgactccg atgtcgacga gtttctggac aagtttctca 350
gtgctggcgt gaagcagacg gacccccc gaaaggagac ggagcagccg 400
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aaggagcgcc cattcgacga catccccaac tcggagctga gccacctgat 600
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cctggAACCT gacgcacgcg cactccagtt ttttatgac ctacgatttt 1450

gcaatctggg cttcttggc actccactgc ctcttatccat tgagtactgt 1500

atcgatattg ttttttaaga ttaatatatt tcaggtattt aatacga 1547

<210> 466

<211> 414

<212> PRT

<213> Homo sapiens

<400> 466

Met Thr Lys Ala Arg Leu Phe Arg Leu Trp Leu Val Leu Gly Ser
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Val Phe Met Ile Leu Leu Ile Ile Val Tyr Trp Asp Ser Ala Gly
20 25 30

Ala Ala His Phe Tyr Leu His Thr Ser Phe Ser Arg Pro His Thr
35 40 45

Gly Pro Pro Leu Pro Thr Pro Gly Pro Asp Arg Asp Arg Glu Leu
50 55 60

Thr Ala Asp Ser Asp Val Asp Glu Phe Leu Asp Lys Phe Leu Ser
65 70 75

Ala Gly Val Lys Gln Ser Asp Leu Pro Arg Lys Glu Thr Glu Gln
80 85 90

Pro Pro Ala Pro Gly Ser Met Glu Glu Ser Val Arg Gly Tyr Asp
95 100 105

Trp Ser Pro Arg Asp Ala Arg Arg Ser Pro Asp Gln Gly Arg Gln
110 115 120

Gln Ala Glu Arg Arg Ser Val Leu Arg Gly Phe Cys Ala Asn Ser
125 130 135

Ser Leu Ala Phe Pro Thr Lys Glu Arg Ala Phe Asp Asp Ile Pro
140 145 150

Asn Ser Glu Leu Ser His Leu Ile Val Asp Asp Arg His Gly Ala
155 160 165

Ile Tyr Cys Tyr Val Pro Lys Val Ala Cys Thr Asn Trp Lys Arg
170 175 180

Val Met Ile Val Leu Ser Gly Ser Leu Leu His Arg Gly Ala Pro
185 190 195

Tyr Arg Asp Pro Leu Arg Ile Pro Arg Glu His Val His Asn Ala
200 205 210

Ser Ala His Leu Thr Phe Asn Lys Phe Trp Arg Arg Tyr Gly Lys
215 220 225

Leu Ser Arg His Leu Met Lys Val Lys Leu Lys Lys Tyr Thr Lys
230 235 240

Phe Leu Phe Val Arg Asp Pro Phe Val Arg Leu Ile Ser Ala Phe
245 250 255

Arg Ser Lys Phe Glu Leu Glu Asn Glu Glu Phe Tyr Arg Lys Phe
260 265 270

Ala Val Pro Met Leu Arg Leu Tyr Ala Asn His Thr Ser Leu Pro
275 280 285

Ala Ser Ala Arg Glu Ala Phe Arg Ala Gly Leu Lys Val Ser Phe
290 295 300

Ala Asn Phe Ile Gln Tyr Leu Leu Asp Pro His Thr Glu Lys Leu
305 310 315

Ala Pro Phe Asn Glu His Trp Arg Gln Val Tyr Arg Leu Cys His
320 325 330

Pro Cys Gln Ile Asp Tyr Asp Phe Val Gly Lys Leu Glu Thr Leu
335 340 345

Asp Glu Asp Ala Ala Gln Leu Leu Gln Leu Leu Gln Val Asp Arg
350 355 360

Gln Leu Arg Phe Pro Pro Ser Tyr Arg Asn Arg Thr Ala Ser Ser
365 370 375

Trp Glu Glu Asp Trp Phe Ala Lys Ile Pro Leu Ala Trp Arg Gln
380 385 390

Gln Leu Tyr Lys Leu Tyr Glu Ala Asp Phe Val Leu Phe Gly Tyr
395 400 405

Pro Lys Pro Glu Asn Leu Leu Arg Asp
410

<210> 467
<211> 1071
<212> DNA
<213> Homo sapiens

<400> 467
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ggggccgggc gcggcatcg agctggatc gtgcgcgcct tcgtaacag 200
cggggcccga gtggttatct gcgacaagga tgagtctggg ggccgggccc 250
tggagcagga gctccctgga gctgtctta tcctctgtga tgtgacttag 300
gaagatgtatg tgaagacct ggtttctgag accatccgcc gattggccg 350
cctggattgt gttgtcaaca acgctggcca ccacccaccc ccacagaggc 400

ctgaggagac ctctgccag ggattccgcc agctgctgga gctgaacct 450
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tcaaggaaat gtcatcaaca tctccagcct ggtggggca atcggccagg 550
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aggactctcc caccccaaac tccaacctgt atcagatgca gcccccaagc 1000
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ccataaaaac gatttgcaac c 1071

<210> 468

<211> 270

<212> PRT

<213> Homo sapiens

<400> 468

Met Ala Thr Gly Thr Arg Tyr Ala Gly Lys Val Val Val Val Thr
1 5 10 15

Gly Gly Gly Arg Gly Ile Gly Ala Gly Ile Val Arg Ala Phe Val
20 25 30

Asn Ser Gly Ala Arg Val Val Ile Cys Asp Lys Asp Glu Ser Gly
35 40 45

Gly Arg Ala Leu Glu Gln Glu Leu Pro Gly Ala Val Phe Ile Leu
50 55 60

Cys Asp Val Thr Gln Glu Asp Asp Val Lys Thr Leu Val Ser Glu
65 70 75

Thr Ile Arg Arg Phe Gly Arg Leu Asp Cys Val Val Asn Asn Ala
80 85 90

Gly His His Pro Pro Pro Gln Arg Pro Glu Glu Thr Ser Ala Gln
95 100 105

Gly Phe Arg Gln Leu Leu Glu Leu Asn Leu Leu Gly Thr Tyr Thr
110 115 120

Leu Thr Lys Leu Ala Leu Pro Tyr Leu Arg Lys Ser Gln Gly Asn
125 130 135

Val Ile Asn Ile Ser Ser Leu Val Gly Ala Ile Gly Gln Ala Gln
140 145 150

Ala Val Pro Tyr Val Ala Thr Lys Gly Ala Val Thr Ala Met Thr
155 160 165

Lys Ala Leu Ala Leu Asp Glu Ser Pro Tyr Gly Val Arg Val Asn
170 175 180

Cys Ile Ser Pro Gly Asn Ile Trp Thr Pro Leu Trp Glu Glu Leu
185 190 195

Ala Ala Leu Met Pro Asp Pro Arg Ala Thr Ile Arg Glu Gly Met
200 205 210

Leu Ala Gln Pro Leu Gly Arg Met Gly Gln Pro Ala Glu Val Gly
215 220 225

Ala Ala Ala Val Phe Leu Ala Ser Glu Ala Asn Phe Cys Thr Gly
230 235 240

Ile Glu Leu Leu Val Thr Gly Gly Ala Glu Leu Gly Tyr Gly Cys
245 250 255

Lys Ala Ser Arg Ser Thr Pro Val Asp Ala Pro Asp Ile Pro Ser
260 265 270

<210> 469

<211> 687

<212> DNA

<213> Homo sapiens

<400> 469

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ccagccccagg agccccaaaa gcaagaggaa ggggcaaggg cggcctggc 150
ccctggcccc tggccctcac cagtgccac tggacctggt gtcacggatg 200
aaaccgtatg cccgcatgga ggagtatgag aggaacatcg aggagatggt 250
ggcccagctg aggaacagct cagagctggc ccagagaaaag tgtgaggtca 300
acttgcagct gtggatgtcc aacaagagga gcctgtctcc ctggggctac 350
agcatcaacc acgacccccag ccgtatcccc gtggacctgc cggaggcacg 400
gtgcctgtgt ctgggctgtg tgaaccctt caccatgcag gaggaccgca 450
gcatggtgag cgtgccggtg ttcagccagg ttccctgtgcg ccgcgcgcctc 500
tgcccgccac cgccccgcac agggccttgc cgccagcgcg cagtcatgga 550

gaccatcgct gtgggctgca cctgcacatctt ctgaatcacc tggcccagaa 600
gccaggccag cagcccgaga ccatacctcct tgcacccttg tgccaagaaa 650
ggcctatgaa aagttaaacac tgactttga aagcaag 687

<210> 470
<211> 180
<212> PRT
<213> Homo sapiens

<400> 470
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Phe Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg Lys
20 25 30
Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val
35 40 45
Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
50 55 60
Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
65 70 75
Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
80 85 90
Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
95 100 105
Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
110 115 120
Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
125 130 135
Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
140 145 150
Arg Arg Leu Cys Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
155 160 165
Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
170 175 180

<210> 471
<211> 2368
<212> DNA
<213> Homo sapiens

<400> 471
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cggcccgcaag ctaacggcgc tcctggccgc ctggatcgcg gctgtggcggt 200
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cagcccatga ccgcctccaa ctggacgctg gtatggagg gcgagtggat 300
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aaggtagatg tcattcaaga accagggttg agtggccgct tctttgtcac 450
cactctccca gcatttttc atgcaaagga tggatattc cgccgttatac 500
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agggaggcta atttcttt 2368

<210> 472

<211> 349

<212> PRT

<213> Homo sapiens

<400> 472

Met	Ala	Gly	Gly	Arg	Cys	Gly	Pro	Gln	Leu	Thr	Ala	Leu	Leu	Ala
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Ala	Trp	Ile	Ala	Ala	Val	Ala	Ala	Thr	Ala	Gly	Pro	Glu	Glu	Ala
					20			25					30	

Ala	Leu	Pro	Pro	Glu	Gln	Ser	Arg	Val	Gln	Pro	Met	Thr	Ala	Ser
				35				40					45	

Asn	Trp	Thr	Leu	Val	Met	Glu	Gly	Glu	Trp	Met	Leu	Lys	Phe	Tyr
				50				55					60	

Ala	Pro	Trp	Cys	Pro	Ser	Cys	Gln	Gln	Thr	Asp	Ser	Glu	Trp	Glu
				65				70					75	

Ala	Phe	Ala	Lys	Asn	Gly	Glu	Ile	Leu	Gln	Ile	Ser	Val	Gly	Lys
				80				85					90	

Val Asp Val Ile Gln Glu Pro Gly Leu Ser Gly Arg Phe Phe Val
95 100 105

Thr Thr Leu Pro Ala Phe Phe His Ala Lys Asp Gly Ile Phe Arg
110 115 120

Arg Tyr Arg Gly Pro Gly Ile Phe Glu Asp Leu Gln Asn Tyr Ile
125 130 135

Leu Glu Lys Lys Trp Gln Ser Val Glu Pro Leu Thr Gly Trp Lys
140 145 150

Ser Pro Ala Ser Leu Thr Met Ser Gly Met Ala Gly Leu Phe Ser
155 160 165

Ile Ser Gly Lys Ile Trp His Leu His Asn Tyr Phe Thr Val Thr
170 175 180

Leu Gly Ile Pro Ala Trp Cys Ser Tyr Val Phe Phe Val Ile Ala
185 190 195

Thr Leu Val Phe Gly Leu Phe Met Gly Leu Val Leu Val Val Ile
200 205 210

Ser Glu Cys Phe Tyr Val Pro Leu Pro Arg His Leu Ser Glu Arg
215 220 225

Ser Glu Gln Asn Arg Arg Ser Glu Glu Ala His Arg Ala Glu Gln
230 235 240

Leu Gln Asp Ala Glu Glu Glu Lys Asp Asp Ser Asn Glu Glu Glu
245 250 255

Asn Lys Asp Ser Leu Val Asp Asp Glu Glu Lys Glu Asp Leu
260 265 270

Gly Asp Glu Asp Glu Ala Glu Glu Glu Glu Glu Asp Asn Leu
275 280 285

Ala Ala Gly Val Asp Glu Glu Arg Ser Glu Ala Asn Asp Gln Gly
290 295 300

Pro Pro Gly Glu Asp Gly Val Thr Arg Glu Glu Val Glu Pro Glu
305 310 315

Glu Ala Glu Glu Gly Ile Ser Glu Gln Pro Cys Pro Ala Asp Thr
320 325 330

Glu Val Val Glu Asp Ser Leu Arg Gln Arg Lys Ser Gln His Ala
335 340 345

Asp Lys Gly Leu

<210> 473
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 473
gtccagccca tgaccgcctc caac 24

<210> 474
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 474
ctctccatcc acaccaggc agcc 24

<210> 475
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 475
gtggatgctg aaattttacg ccccatggtg tccatcctgc cagc 44

<210> 476
<211> 2478
<212> DNA
<213> Homo sapiens

<400> 476
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tcaagaacaa tggaatatca tcctgattta gaaaatttgg atgaagatgg 200
atatactcaa ttacacttcg actctcaaag caataccagg atagctgttg 250
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaa 2478

<210> 477

<211> 201

<212> PRT

<213> Homo sapiens

<400> 477

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				20					25					30
Val	Ser	Glu	Lys	Gly	Ser	Cys	Ala	Ala	Ser	Pro	Pro	Trp	Arg	Leu
				35					40					45
Ile	Ala	Val	Ile	Leu	Gly	Ile	Leu	Cys	Leu	Val	Ile	Leu	Val	Ile
				50					55					60
Ala	Val	Val	Leu	Gly	Thr	Met	Gly	Val	Leu	Ser	Ser	Pro	Cys	Pro
				65					70					75
Pro	Asn	Trp	Ile	Ile	Tyr	Glu	Lys	Ser	Cys	Tyr	Leu	Phe	Ser	Met
				80					85					90
Ser	Leu	Asn	Ser	Trp	Asp	Gly	Ser	Lys	Arg	Gln	Cys	Trp	Gln	Leu
				95					100					105
Gly	Ser	Asn	Leu	Leu	Lys	Ile	Asp	Ser	Ser	Asn	Glu	Leu	Gly	Phe
				110					115					120
Ile	Val	Lys	Gln	Val	Ser	Ser	Gln	Pro	Asp	Asn	Ser	Phe	Trp	Ile
				125					130					135
Gly	Leu	Ser	Arg	Pro	Gln	Thr	Glu	Val	Pro	Trp	Leu	Trp	Glu	Asp
				140					145					150
Gly	Ser	Thr	Phe	Ser	Ser	Asn	Leu	Phe	Gln	Ile	Arg	Thr	Thr	Ala
				155					160					165
Thr	Gln	Glu	Asn	Pro	Ser	Pro	Asn	Cys	Val	Trp	Ile	His	Val	Ser

170

175

180

Val Ile Tyr Asp Gln Leu Cys Ser Val Pro Ser Tyr Ser Ile Cys
185 190 195

Glu Lys Lys Phe Ser Met
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<210> 478
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 478
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<210> 479
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 479
acaagtgtct tcccaacctg 20

<210> 480
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 480
atcctcccaag agccatggta cctc 24

<210> 481
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 481
ccaaggatag ctgttgttgc agagaaagga tcgtgtgctg catctcctcc 50

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<210> 482
<211> 3819
<212> DNA
<213> Homo sapiens

<400> 482

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tcagccccc gagtagctgg gattacaggt ggtgacttcc aagagtgact 200
ccgtcgaggaaaatgactc cccagtcgtc gctgcagacg acactgttcc 250
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<211> 693

<212> PRT

<213> Homo sapiens

<400> 483

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				20				25				30		

Asp	Phe	Arg	Phe	Cys	Ser	Gln	Arg	Asn	Gln	Thr	His	Arg	Ser	Ser
				35				40				45		

Leu	His	Tyr	Lys	Pro	Thr	Pro	Asp	Leu	Arg	Ile	Ser	Ile	Glu	Asn
				50				55				60		

Ser	Glu	Glu	Ala	Leu	Thr	Val	His	Ala	Pro	Phe	Pro	Ala	Ala	His
				65				70				75		

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 Cys Leu Tyr Trp Asn Arg His Ala Gly Arg Leu His Leu Leu Tyr
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 Gly Lys Arg Asp Phe Leu Leu Ser Asp Lys Ala Ser Ser Leu Leu
 110 115 120
 Cys Phe Gln His Gln Glu Glu Ser Leu Ala Gln Gly Pro Pro Leu
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 140 145 150
 Leu Pro Ser Ala Ala Ser Phe Thr Phe Ser Phe His Ser Pro Pro
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 His Thr Ala Ala His Asn Ala Ser Val Asp Met Cys Glu Leu Lys
 170 175 180
 Arg Asp Leu Gln Leu Leu Ser Gln Phe Leu Lys His Pro Gln Lys
 185 190 195
 Ala Ser Arg Arg Pro Ser Ala Ala Pro Ala Ser Gln Gln Leu Gln
 200 205 210
 Ser Leu Glu Ser Lys Leu Thr Ser Val Arg Phe Met Gly Asp Met
 215 220 225
 Val Ser Phe Glu Glu Asp Arg Ile Asn Ala Thr Val Trp Lys Leu
 230 235 240
 Gln Pro Thr Ala Gly Leu Gln Asp Leu His Ile His Ser Arg Gln
 245 250 255
 Glu Glu Glu Gln Ser Glu Ile Met Glu Tyr Ser Val Leu Leu Pro
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 Arg Thr Leu Phe Gln Arg Thr Lys Gly Arg Ser Gly Glu Ala Glu
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 Asp Lys Asn Ser Ser Gln Val Leu Gly Glu Lys Val Leu Gly Ile
 305 310 315
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 Cys Val Phe Trp Val Glu Asp Pro Thr Leu Ser Ser Pro Gly His
 350 355 360
 Trp Ser Ser Ala Gly Cys Glu Thr Val Arg Arg Glu Thr Gln Thr

365

370

375

Ser Cys Phe Cys Asn His Leu Thr Tyr Phe Ala Val Leu Met Val
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Ser Ser Val Glu Val Asp Ala Val His Lys His Tyr Leu Ser Leu
 395 400 405

Leu Ser Tyr Val Gly Cys Val Val Ser Ala Leu Ala Cys Leu Val
 410 415 420

Thr Ile Ala Ala Tyr Leu Cys Ser Arg Val Pro Leu Pro Cys Arg
 425 430 435

Arg Lys Pro Arg Asp Tyr Thr Ile Lys Val His Met Asn Leu Leu
 440 445 450

Leu Ala Val Phe Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu Pro
 455 460 465

Val Ala Leu Thr Gly Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile
 470 475 480

Phe Leu His Phe Ser Leu Leu Thr Cys Leu Ser Trp Met Gly Leu
 485 490 495

Glu Gly Tyr Asn Leu Tyr Arg Leu Val Val Glu Val Phe Gly Thr
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Tyr Val Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly Trp Gly
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Phe Pro Ile Phe Leu Val Thr Leu Val Ala Leu Val Asp Val Asp
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Asn Tyr Gly Pro Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly
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Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp Ser Leu Val Ser
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Tyr Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe Leu Phe Asn
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Met Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg Leu Arg
 590 595 600

Pro His Thr Gln Lys Trp Ser His Val Leu Thr Leu Leu Gly Leu
 605 610 615

Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe
 620 625 630

Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser Ile
 635 640 645

Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser
 650 655 660

Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn
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Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser
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Ser Arg Ile

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<211> 516

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<213> Homo sapiens

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<222> 68, 70, 84, 147

<223> unknown base

<400> 484

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<210> 485

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 485

ggcattggag cagtgctggg tg 22

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<212> DNA

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<400> 486
tggaggccta gatgcggctg gacg 24

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<212> DNA
<213> Homo sapiens

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<222> 2715
<223> unknown base

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aa~~agggg~~ctc tagaaaaaag ttt~~ggat~~gg gattatgt~~gg~~ aaactacc~~ct~~ 150
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<211> 345
<212> PRT
<213> Homo sapiens

<400> 488
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35 40 45
His Glu Arg Ile Ile Thr Val Ser Thr Asn Gly Ser Ile His Ser
50 55 60
Pro Arg Phe Pro His Thr Tyr Pro Arg Asn Thr Val Leu Val Trp
65 70 75
Arg Leu Val Ala Val Glu Glu Asn Val Trp Ile Gln Leu Thr Phe
80 85 90
Asp Glu Arg Phe Gly Leu Glu Asp Pro Glu Asp Asp Ile Cys Lys
95 100 105
Tyr Asp Phe Val Glu Val Glu Glu Pro Ser Asp Gly Thr Ile Leu
110 115 120
Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly Lys Gln Ile Ser
125 130 135
Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp Glu Tyr Phe
140 145 150
Pro Ser Glu Pro Gly Phe Cys Ile His Tyr Asn Ile Val Met Pro
155 160 165
Gln Phe Thr Glu Ala Val Ser Pro Ser Val Leu Pro Pro Ser Ala
170 175 180
Leu Pro Leu Asp Leu Leu Asn Asn Ala Ile Thr Ala Phe Ser Thr
185 190 195

Leu Glu Asp Leu Ile Arg Tyr Leu Glu Pro Glu Arg Trp Gln Leu
200 205 210

Asp Leu Glu Asp Leu Tyr Arg Pro Thr Trp Gln Leu Leu Gly Lys
215 220 225

Ala Phe Val Phe Gly Arg Lys Ser Arg Val Val Asp Leu Asn Leu
230 235 240

Leu Thr Glu Glu Val Arg Leu Tyr Ser Cys Thr Pro Arg Asn Phe
245 250 255

Ser Val Ser Ile Arg Glu Glu Leu Lys Arg Thr Asp Thr Ile Phe
260 265 270

Trp Pro Gly Cys Leu Leu Val Lys Arg Cys Gly Gly Asn Cys Ala
275 280 285

Cys Cys Leu His Asn Cys Asn Glu Cys Gln Cys Val Pro Ser Lys
290 295 300

Val Thr Lys Lys Tyr His Glu Val Leu Gln Leu Arg Pro Lys Thr
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<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 489

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<223> Synthetic oligonucleotide probe
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<212> DNA
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<211> 1049

<212> PRT

<213> Homo sapiens

<400> 496

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Thr	Leu	Thr	Glu	Leu	Tyr	Leu	Tyr	Asn	Asn	Met	Ile	Ala	Lys	Ile
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275 280 285

Phe Asp Ala Leu Thr Glu Leu Lys Val Leu Arg Leu His Ser Asn
290 295 300

Ser Leu Gln His Val Pro Pro Arg Trp Phe Lys Asn Ile Asn Lys
305 310 315

Leu Gln Glu Leu Asp Leu Ser Gln Asn Phe Leu Ala Lys Glu Ile
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Asn Leu Ser Gln Ala Phe Ser Ser Leu Lys Ser Leu Lys Ile Leu
365 370 375

Arg Ile Arg Gly Tyr Val Phe Lys Glu Leu Lys Ser Phe Asn Leu
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Thr Asn Phe Ile Lys Ile Ala Asn Leu Ser Met Phe Lys Gln Phe
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Lys Arg Leu Lys Val Ile Asp Leu Ser Val Asn Lys Ile Ser Pro
425 430 435

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440 445 450

Ser Val Glu Ser Tyr Glu Pro Gln Val Leu Glu Gln Leu His Tyr
455 460 465

Phe Arg Tyr Asp Lys Tyr Ala Arg Ser Cys Arg Phe Lys Asn Lys
470 475 480

Glu Ala Ser Phe Met Ser Val Asn Glu Ser Cys Tyr Lys Tyr Gly
485 490 495

Gln Thr Leu Asp Leu Ser Lys Asn Ser Ile Phe Phe Val Lys Ser
500 505 510

Ser Asp Phe Gln His Leu Ser Phe Leu Lys Cys Leu Asn Leu Ser
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Leu Ala Glu Leu Arg Tyr Leu Asp Phe Ser Asn Asn Arg Leu Asp

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785	790	795	
Trp Trp Val Asn His Thr Glu Val Thr Ile Pro Tyr Leu Ala Thr			
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Ile Ser Leu Asp Leu Tyr Thr Cys Glu Leu Asp Leu Thr Asn Leu			
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<211> 4199

<212> DNA

<213> Homo sapiens

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Asn Phe Tyr His Phe Thr Arg Pro Leu Ile Lys Pro Gln Cys Ala
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590 595 600

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Tyr Ile Ser Ile Phe Lys Gly Leu Lys Asn Leu Thr Arg Leu Asp

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Ile Phe Ile Leu Leu Glu Pro Val Leu Gln His Ser Gln Tyr Leu
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Arg Leu Arg Gln Arg Ile Cys Lys Ser Ser Ile Leu Gln Trp Pro
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<210> 500

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 500

atccatgagc ctctgatggg 20

<210> 501

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 501

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<210> 502

<211> 21
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<220>
<223> Synthetic oligonucleotide probe

<400> 502
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 503
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<210> 504
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<220>
<223> Synthetic oligonucleotide probe

<400> 504
tcgacaacct catgcagagc atcaacccaa gcaagaaaac agtatt 46

<210> 505
<211> 1738
<212> DNA
<213> Homo sapiens

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gcccaacttg tttattgcag cttataatgg ttacaaat 1738

<210> 506

<211> 273

<212> PRT

<213> Homo sapiens

<400> 506

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 20 25 30

 Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val
 35 40 45

 Gln Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg
 50 55 60

 Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg
 65 70 75

 Ser Pro Gly Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro
 80 85 90

 Gly Trp Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala
 95 100 105

 Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
 110 115 120

 Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
 125 130 135

 Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln
 140 145 150

 Arg Cys Ile Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu
 155 160 165

 Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys Gly
 170 175 180

 Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala
 185 190 195

 Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Leu
 200 205 210

 Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala
 215 220 225

 Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu
 230 235 240

 Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu
 245 250 255

 Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys
 260 265 270

 Lys Asp Ser

<210> 507
 <211> 1700
 <212> DNA
 <213> Homo sapiens

<400> 507

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gaggaacccc aaagccacat ctgtagccag gatgagcagt gtgaatccag 350
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<210> 508

<211> 273

<212> PRT

<213> Homo sapiens

<400> 508

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Ala	Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val
				20				25						30
Cys	Ala	Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val
				35			40							45
Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg
				50			55							60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg
				65			70							75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro
				80			85							90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala
				95			100							105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro
				110			115							120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln
				125			130							135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln
				140			145							150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu
				155			160							165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly
				170			175							180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala
				185			190							195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu
				200			205							210

Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala
215 220 225
Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu
230 235 240
Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu
245 250 255
Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys
260 265 270
Lys Asp Ser

<210> 509
<211> 1538
<212> DNA
<213> Homo sapiens

<400> 509
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<210> 510

<211> 273

<212> PRT

<213> Homo sapiens

<400> 510

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20 25 30

Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val
35 40 45

Gln Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg
50 55 60

Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg
65 70 75

Ser Pro Gly Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro
80 85 90

Gly Trp Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala
95 100 105

Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
110 115 120

Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
125 130 135

Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln

140 145 150
Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu
155 160 165
Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys Gly
170 175 180
Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala
185 190 195
Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Leu
200 205 210
Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala
215 220 225
Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu
230 235 240
Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu
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Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys
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Lys Asp Ser

<210> 511

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 511

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<210> 512

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 512

ttttccactc ctgtcggtt gg 22

<210> 513

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 513
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<210> 514
<211> 2690
<212> DNA
<213> Homo sapiens

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<222> 2039-2065
<223> unknown base

<400> 514
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<210> 515
<211> 364
<212> PRT
<213> Homo sapiens

<400> 515
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35 40 45
Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu
50 55 60
Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu
65 70 75
Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp
80 85 90
Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile
95 100 105
Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln
110 115 120
Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile
125 130 135
Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro
140 145 150
Arg Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe
155 160 165
Asp His His Cys Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn
170 175 180
Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr
185 190 195
Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr Val Ala Leu Lys Ser
200 205 210
Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr
215 220 225
Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp Ser Val Val

230	235	240
Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln Thr		
245	250	255
Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val		
260	265	270
Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu		
275	280	285
Val Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly		
290	295	300
Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln		
305	310	315
Glu Thr Ser Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu		
320	325	330
His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu		
335	340	345
Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala		
350	355	360
Glu Ala Glu Lys		

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<211> 255
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 36, 38, 88, 118, 135, 193, 213, 222
<223> unknown base

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ccccctgggtg gggaaattgtt ttggaaagag gaactaccgc tanttctacc 200
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atcg 255

<210> 517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 517
caacgtgatt tcaaagctgg gctc 24

<210> 518
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 518
gcctcgatc aagaatttcc 20

<210> 519
<211> 18
<212> DNA
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<223> Synthetic oligonucleotide probe

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<213> Homo sapiens

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Thr Val Arg Gln Gly Glu Ser Ala Thr Leu Arg Cys Thr Ile Asp
50 55 60
Asn Arg Val Thr Arg Val Ala Trp Leu Asn Arg Ser Thr Ile Leu
65 70 75
Tyr Ala Gly Asn Asp Lys Trp Cys Leu Asp Pro Arg Val Val Leu
80 85 90
Leu Ser Asn Thr Gln Thr Gln Tyr Ser Ile Glu Ile Gln Asn Val
95 100 105
Asp Val Tyr Asp Glu Gly Pro Tyr Thr Cys Ser Val Gln Thr Asp
110 115 120
Asn His Pro Lys Thr Ser Arg Val His Leu Ile Val Gln Val Ser
125 130 135
Pro Lys Ile Val Glu Ile Ser Ser Asp Ile Ser Ile Asn Glu Gly
140 145 150
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155 160 165
Thr Val Thr Trp Arg His Ile Ser Pro Lys Ala Val Gly Phe Val
170 175 180
Ser Glu Asp Glu Tyr Leu Glu Ile Gln Gly Ile Thr Arg Glu Gln
185 190 195
Ser Gly Asp Tyr Glu Cys Ser Ala Ser Asn Asp Val Ala Ala Pro
200 205 210
Val Val Arg Arg Val Lys Val Thr Val Asn Tyr Pro Pro Tyr Ile
215 220 225
Ser Glu Ala Lys Gly Thr Gly Val Pro Val Gly Gln Lys Gly Thr

230 235 240

Leu Gln Cys Glu Ala Ser Ala Val Pro Ser Ala Glu Phe Gln Trp
245 250 255

Tyr Lys Asp Asp Lys Arg Leu Ile Glu Gly Lys Lys Gly Val Lys
260 265 270

Val Glu Asn Arg Pro Phe Leu Ser Lys Leu Ile Phe Phe Asn Val
275 280 285

Ser Glu His Asp Tyr Gly Asn Tyr Thr Cys Val Ala Ser Asn Lys
290 295 300

Leu Gly His Thr Asn Ala Ser Ile Met Leu Phe Gly Pro Gly Ala
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Val Ser Glu Val Ser Asn Gly Thr Ser Arg Arg Ala Gly Cys Val
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Trp Leu Leu Pro Leu Leu Val Leu His Leu Leu Leu Lys Phe
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<211> 503

<212> DNA

<213> Homo sapiens

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gag 503

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<211> 2602

<212> DNA

<213> Homo sapiens

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DRAFT GENOME

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<211> 736

<212> PRT

<213> Homo sapiens

<400> 526

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				20					25				30	

Glu Leu Val Leu Ala Gly Ala Ser Leu Leu Leu Ala Ala Leu Leu
35 40 45

Leu Gly Cys Leu Val Ala Leu Gly Val Gln Tyr His Arg Asp Pro
50 55 60

Ser His Ser Thr Cys Leu Thr Glu Ala Cys Ile Arg Val Ala Gly
65 70 75

Lys Ile Leu Glu Ser Leu Asp Arg Gly Val Ser Pro Cys Glu Asp
80 85 90

Phe Tyr Gln Phe Ser Cys Gly Gly Trp Ile Arg Arg Asn Pro Leu
95 100 105

Pro Asp Gly Arg Ser Arg Trp Asn Thr Phe Asn Ser Leu Trp Asp
110 115 120

Gln Asn Gln Ala Ile Leu Lys His Leu Leu Glu Asn Thr Thr Phe
125 130 135

Asn Ser Ser Ser Glu Ala Glu Gln Lys Thr Gln Arg Phe Tyr Leu
140 145 150

Ser Cys Leu Gln Val Glu Arg Ile Glu Glu Leu Gly Ala Gln Pro
155 160 165

Leu Arg Asp Leu Ile Glu Lys Ile Gly Gly Trp Asn Ile Thr Gly
170 175 180

Pro Trp Asp Gln Asp Asn Phe Met Glu Val Leu Lys Ala Val Ala
185 190 195

Gly Thr Tyr Arg Ala Thr Pro Phe Phe Thr Val Tyr Ile Ser Ala
200 205 210

Asp Ser Lys Ser Ser Asn Ser Asn Val Ile Gln Val Asp Gln Ser
215 220 225

Gly Leu Phe Leu Pro Ser Arg Asp Tyr Tyr Leu Asn Arg Thr Ala
230 235 240

Asn Glu Lys Val Leu Thr Ala Tyr Leu Asp Tyr Met Glu Glu Leu
245 250 255

Gly Met Leu Leu Gly Gly Arg Pro Thr Ser Thr Arg Glu Gln Met
260 265 270

Gln Gln Val Leu Glu Leu Glu Ile Gln Leu Ala Asn Ile Thr Val
275 280 285

Pro Gln Asp Gln Arg Arg Asp Glu Glu Lys Ile Tyr His Lys Met
290 295 300

Ser Ile Ser Glu Leu Gln Ala Leu Ala Pro Ser Met Asp Trp Leu
305 310 315

Glu Phe Leu Ser Phe Leu Leu Ser Pro Leu Glu Leu Ser Asp Ser

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Ile Trp Asn Leu Val Gln Lys Thr Thr Ser Ser Leu Asp Arg Arg			
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380	385	390	
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Asp Asp Ala Leu Gly Phe Ala Leu Gly Ser Leu Phe Val Lys Ala			
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440	445	450	
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455	460	465	
Ile Tyr Asp Met Ile Gly Phe Pro Asp Phe Ile Leu Glu Pro Lys			
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Arg Asn His Pro Lys Ala Leu Asn Phe Gly Gly Ile Gly Val Val			
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Met Gly His Glu Leu Thr His Ala Phe Asp Asp Gln Gly Arg Glu			
575	580	585	
Tyr Asp Lys Glu Gly Asn Leu Arg Pro Trp Trp Gln Asn Glu Ser			
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Leu Ala Ala Phe Arg Asn His Thr Ala Cys Met Glu Glu Gln Tyr			
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635 640 645

Asn Ala Tyr Lys Ala Trp Leu Arg Lys His Gly Glu Glu Gln Gln
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Leu Pro Ala Val Gly Leu Thr Asn His Gln Leu Phe Phe Val Gly
665 670 675

Phe Ala Gln Val Trp Cys Ser Val Arg Thr Pro Glu Ser Ser His
680 685 690

Glu Gly Leu Val Thr Asp Pro His Ser Pro Ala Arg Phe Arg Val
695 700 705

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Trp

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<211> 4308
<212> DNA
<213> Homo sapiens

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<223> unknown base

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tgggacgttt gtcaaaaaaaaaaaaaaaa 2840

<210> 612
<211> 352
<212> PRT
<213> Homo Sapien

<400> 612
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20 25 30
Pro Ala Gly Gln Ser Val Asp Phe Pro Trp Ala Ala Val Asp Asn
35 40 45
Met Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu
50 55 60
Glu Asp Gly Ala Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile
65 70 75
Ile Phe Ala Gly Gly Asp Lys Trp Ser Val Asp Pro Arg Val Ser
80 85 90
Ile Ser Thr Leu Asn Lys Arg Asp Tyr Ser Leu Gln Ile Gln Asn
95 100 105
Val Asp Val Thr Asp Asp Gly Pro Tyr Thr Cys Ser Val Gln Thr
110 115 120
Gln His Thr Pro Arg Thr Met Gln Val His Leu Thr Val Gln Val
125 130 135
Pro Pro Lys Ile Tyr Asp Ile Ser Asn Asp Met Thr Val Asn Glu
140 145 150
Gly Thr Asn Val Thr Leu Thr Cys Leu Ala Thr Gly Lys Pro Glu
155 160 165
Pro Ser Ile Ser Trp Arg His Ile Ser Pro Ser Ala Lys Pro Phe
170 175 180
Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr Arg Asp Gln
185 190 195
Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Ala Val Ser Phe Pro
200 205 210
Asp Val Arg Lys Val Lys Val Val Asn Phe Ala Pro Thr Ile
215 220 225
Gln Glu Ile Lys Ser Gly Thr Val Thr Pro Gly Arg Ser Gly Leu

230 235 240

Ile Arg Cys Glu Gly Ala Gly Val Pro Pro Pro Ala Phe Glu Trp
 245 250 255

Tyr Lys Gly Glu Lys Lys Leu Phe Asn Gly Gln Gln Gly Ile Ile
 260 265 270

Ile Gln Asn Phe Ser Thr Arg Ser Ile Leu Thr Val Thr Asn Val
 275 280 285

Thr Gln Glu His Phe Gly Asn Tyr Thr Cys Val Ala Ala Asn Lys
 290 295 300

Leu Gly Thr Thr Asn Ala Ser Leu Pro Leu Asn Pro Pro Ser Thr
 305 310 315

Ala Gln Tyr Gly Ile Thr Gly Ser Ala Asp Val Leu Phe Ser Cys
 320 325 330

Trp Tyr Leu Val Leu Thr Leu Ser Ser Phe Thr Ser Ile Phe Tyr
 335 340 345

Leu Lys Asn Ala Ile Leu Gln
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<210> 613
<211> 1797
<212> DNA
<213> Homo Sapien

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<210> 614

<211> 520

<212> PRT

<213> Homo Sapien

<400> 614

Met	Arg	Asn	Lys	Lys	Ile	Leu	Lys	Glu	Asp	Glu	Leu	Leu	Ser	Glu
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Thr	Gln	Gln	Ala	Ala	Phe	His	Gln	Ile	Ala	Met	Glu	Pro	Phe	Glu
					20				25					30

Ile Asn Val Pro Lys Pro Lys Arg Arg Asn Gly Val Asn Phe Ser
35 40 45

Leu Ala Val Val Val Ile Tyr Leu Ile Leu Leu Thr Ala Gly Ala
50 55 60

Gly Leu Leu Val Val Gln Val Leu Asn Leu Gln Ala Arg Leu Arg
65 70 75

Val Leu Glu Met Tyr Phe Leu Asn Asp Thr Leu Ala Ala Glu Asp
80 85 90

Ser Pro Ser Phe Ser Leu Leu Gln Ser Ala His Pro Gly Glu His
95 100 105

Leu Ala Gln Gly Ala Ser Arg Leu Gln Val Leu Gln Ala Gln Leu
110 115 120

Thr Trp Val Arg Val Ser His Glu His Leu Leu Gln Arg Val Asp
125 130 135

Asn Phe Thr Gln Asn Pro Gly Met Phe Arg Ile Lys Gly Glu Gln
140 145 150

Gly Ala Pro Gly Leu Gln Gly His Lys Gly Ala Met Gly Met Pro
155 160 165

Gly Ala Pro Gly Pro Pro Gly Pro Pro Ala Glu Lys Gly Ala Lys
170 175 180

Gly Ala Met Gly Arg Asp Gly Ala Thr Gly Pro Ser Gly Pro Gln
185 190 195

Gly Pro Pro Gly Val Lys Gly Glu Ala Gly Leu Gln Gly Pro Gln
200 205 210

Gly Ala Pro Gly Lys Gln Gly Ala Thr Gly Thr Pro Gly Pro Gln
215 220 225

Gly Glu Lys Gly Ser Lys Gly Asp Gly Gly Leu Ile Gly Pro Lys
230 235 240

Gly Glu Thr Gly Thr Lys Gly Glu Lys Gly Asp Leu Gly Leu Pro
245 250 255

Gly Ser Lys Gly Asp Arg Gly Met Lys Gly Asp Ala Gly Val Met
260 265 270

Gly Pro Pro Gly Ala Gln Gly Ser Lys Gly Asp Phe Gly Arg Pro
275 280 285

Gly Pro Pro Gly Leu Ala Gly Phe Pro Gly Ala Lys Gly Asp Gln
290 295 300

Gly Gln Pro Gly Leu Gln Gly Val Pro Gly Pro Pro Gly Ala Val
305 310 315

Gly His Pro Gly Ala Lys Gly Glu Pro Gly Ser Ala Gly Ser Pro

320	325	330
Gly Arg Ala Gly Leu Pro Gly Ser Pro Gly Ser Pro Gly Ala Thr		
335	340	345
Gly Leu Lys Gly Ser Lys Gly Asp Thr Gly Leu Gln Gly Gln Gln		
350	355	360
Gly Arg Lys Gly Glu Ser Gly Val Pro Gly Pro Ala Gly Val Lys		
365	370	375
Gly Glu Gln Gly Ser Pro Gly Leu Ala Gly Pro Lys Gly Ala Pro		
380	385	390
Gly Gln Ala Gly Gln Lys Gly Asp Gln Gly Val Lys Gly Ser Ser		
395	400	405
Gly Glu Gln Gly Val Lys Gly Glu Lys Gly Glu Arg Gly Glu Asn		
410	415	420
Ser Val Ser Val Arg Ile Val Gly Ser Ser Asn Arg Gly Arg Ala		
425	430	435
Glu Val Tyr Tyr Ser Gly Thr Trp Gly Thr Ile Cys Asp Asp Glu		
440	445	450
Trp Gln Asn Ser Asp Ala Ile Val Phe Cys Arg Met Leu Gly Tyr		
455	460	465
Ser Lys Gly Arg Ala Leu Tyr Lys Val Gly Ala Gly Thr Gly Gln		
470	475	480
Ile Trp Leu Asp Asn Val Gln Cys Arg Gly Thr Glu Ser Thr Leu		
485	490	495
Trp Ser Cys Thr Lys Asn Ser Trp Gly His His Asp Cys Ser His		
500	505	510
Glu Glu Asp Ala Gly Val Glu Cys Ser Val		
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<210> 615

<211> 647

<212> DNA

<213> Homo Sapien

<400> 615

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<210> 616

<211> 98

<212> PRT

<213> Homo Sapien

<400> 616

Met	Lys	Leu	Met	Val	Leu	Val	Phe	Thr	Ile	Gly	Leu	Thr	Leu	Leu
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Leu	Gly	Val	Gln	Ala	Met	Pro	Ala	Asn	Arg	Leu	Ser	Cys	Tyr	Arg
					20				25				30	

Lys	Ile	Leu	Lys	Asp	His	Asn	Cys	His	Asn	Leu	Pro	Glu	Gly	Val
					35				40				45	

Ala	Asp	Leu	Thr	Gln	Ile	Asp	Val	Asn	Val	Gln	Asp	His	Phe	Trp
					50				55				60	

Asp	Gly	Lys	Gly	Cys	Glu	Met	Ile	Cys	Tyr	Cys	Asn	Phe	Ser	Glu
					65				70				75	

Leu	Leu	Cys	Cys	Pro	Lys	Asp	Val	Phe	Phe	Gly	Pro	Lys	Ile	Ser
					80				85				90	

Phe	Val	Ile	Pro	Cys	Asn	Asn	Gln							
							95							

<210> 617

<211> 2558

<212> DNA

<213> Homo Sapien

<400> 617

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<210> 618
<211> 750
<212> PRT
<213> Homo Sapien

<400> 618
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Arg Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly
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Gly Phe Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser
35 40 45
Ser Asn Glu Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala
50 55 60
Phe Leu Asp Glu Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu His
65 70 75
Asn Phe Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln Asn Phe
80 85 90

Gln Leu Ala Lys Gln Ile Gln Ser Gln Trp Lys Glu Phe Gly Leu
95 100 105

Asp Ser Val Glu Leu Ala His Tyr Asp Val Leu Leu Ser Tyr Pro
110 115 120

Asn Lys Thr His Pro Asn Tyr Ile Ser Ile Ile Asn Glu Asp Gly
125 130 135

Asn Glu Ile Phe Asn Thr Ser Leu Phe Glu Pro Pro Pro Gly
140 145 150

Tyr Glu Asn Val Ser Asp Ile Val Pro Pro Phe Ser Ala Phe Ser
155 160 165

Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr Ala
170 175 180

Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met Lys Ile Asn
185 190 195

Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val Phe Arg
200 205 210

Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly Val
215 220 225

Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys
230 235 240

Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg
245 250 255

Gly Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro
260 265 270

Gly Tyr Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu
275 280 285

Ala Val Gly Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr
290 295 300

Asp Ala Gln Lys Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro
305 310 315

Asp Ser Ser Trp Arg Gly Ser Leu Lys Val Pro Tyr Asn Val Gly
320 325 330

Pro Gly Phe Thr Gly Asn Phe Ser Thr Gln Lys Val Lys Met His
335 340 345

Ile His Ser Thr Asn Glu Val Thr Arg Ile Tyr Asn Val Ile Gly
350 355 360

Thr Leu Arg Gly Ala Val Glu Pro Asp Arg Tyr Val Ile Leu Gly
365 370 375

Gly His Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser

380	385	390
Gly Ala Ala Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu		
395	400	405
Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile Leu Phe Ala Ser		
410	415	420
Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala		
425	430	435
Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala Tyr Ile		
440	445	450
Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp		
455	460	465
Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu		
470	475	480
Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu		
485	490	495
Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro		
500	505	510
Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe		
515	520	525
Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn		
530	535	540
Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val		
545	550	555
Tyr Glu Thr Tyr Glu Leu Val Glu Lys Phe Tyr Asp Pro Met Phe		
560	565	570
Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe		
575	580	585
Glu Leu Ala Asn Ser Ile Val Leu Pro Phe Asp Cys Arg Asp Tyr		
590	595	600
Ala Val Val Leu Arg Lys Tyr Ala Asp Lys Ile Tyr Ser Ile Ser		
605	610	615
Met Lys His Pro Gln Glu Met Lys Thr Tyr Ser Val Ser Phe Asp		
620	625	630
Ser Leu Phe Ser Ala Val Lys Asn Phe Thr Glu Ile Ala Ser Lys		
635	640	645
Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser Asn Pro Ile Val		
650	655	660
Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu Arg Ala Phe		
665	670	675

Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg His Val
680 685 690

Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser Phe
695 700 705

Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp
710 715 720

Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala
725 730 735

Ala Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala
740 745 750

<210> 619
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 619
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<210> 620
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 620
gaacatcagc gctcccggtt attcc 25

<210> 621
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 621
ccagccttg aatggcacaa aggagagaag aagctttca atggcc 46

<210> 622
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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ccaaactcac ccagtggatg tgagc 25

<210> 623
<211> 25
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<400> 623
tgggaaatca ggaatggtgt tctcc 25

<210> 624
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<400> 624
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